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OUR PRESENT NEED FOR "THE MORAL EQUIVALENT FOR WAR."

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Of all the qualities needed to sustain a nation in the time of peril and difficulty, howsoever arising, I would give the first place to disciplined courage. Equal emphasis must be laid on the adjective and on the noun, and a strong emphasis on both. When great concerted operations have to be performed, or concerted sacrifices endured, courage without discipline is more likely to wreck the "policy" than to carry it to success; while discipline without courage would be ineffectual, if not impossible.

And since in the life of nations the hour of peril and difficulty is always present, either in the shape of adversities threatened from external sources or of prosperities threatened by internal treachery, incompetence and greed, the need of disciplined courage is not only supreme, but continuous—in peace as in war, in times of good trade as in times of bad. Even when the Budget can be easily balanced there are always forces at work which threaten to unbalance it, and disciplined courage is needed to deal with them.

Of late the cry for a more courageous type of statesman-

ship (to which Fascism professes to be the answer) has been widely heard. But it is to be noted that courage in a statesman is of no avail if the people behind him are cowardly and undisciplined. Cromwell without his Ironsides would have been a failure. Great leaders imply great followers (an aspect of the matter often overlooked); they are ineffectual without them; and though it is true that a brave leader will often inspire his followers, otherwise cowardly, by his own example, yet this he will not do if the followers are sunk so low in cowardice that heroic examples no longer appeal to them, or so far gone in anarchy as to have lost the willingness to obey an order. The conception of democracy as a multitude of little men led by a few great ones is obviously absurd, though not uncommon. A true democracy is a community of great citizens differing from one another only in the quality of their greatness; some great by reason of their capacity to lead; others equally great, but with a different quality of greatness, by reason of their capacity to follow; but all great in their common possession of disciplined courage. Democracy has no other foundation, save the sand.

Disciplined courage is a quality demanding high condition both of mind and of body. We look for it in vain among the stupid and the ignorant; among the weak, the sickly and the neurasthenic; among the masses of a C3 population. If it be true, as some have asserted, that "we are a C3 people," the prospects for disciplined courage are not bright. Undisciplined courage such people will often display; factious courage they are not incapable of, but courage on the social scale, on the scale needed to carry a whole nation through its hour of peril, is a strain they are not able to bear. They will follow their leaders so long as an easy and painless victory is assured them; so long as there is nothing but marching (and talking) to be done; so long as there is nothing but "profit" to divide. But when the thing to be divided is not profit but loss; and the thing to be done is not a march but a battle, and the walls of Jericho refuse to fall at the sound of the orator's trumpet; and the issue is not victory but victory *or* defeat—then it is that the ranks will break and tie up into mobs and bundles, fall to quarrelling among themselves and become as stubble under the sword of adversity. That democracy must prepare itself for these conditions by acquiring the disciplined courage to meet them needs no further proof than the present state of the world and of this country in particular. Apart from dis-

ciplined courage the world can never be safe for democracy. Even "good will" cannot make it safe unless the "will" be "good" in that sense as in others—the will to stand firm and to keep the ranks unbroken in the hour of trial.

Among recent historians, especially in our own country, a tendency has arisen to belittle the importance of war as a contributory force in the building up of nations, to divert attention from battles, sieges and campaigns and concentrate it, rather, on the peaceful evolution of science, literature, art, industry, political government and domestic life. Much can be said in defence of this tendency, and much can be pardoned in those who are anxious to rid the world of a scourge so dreadful as war. And yet I cannot but think that the interests of peace are not well served by belittling the importance of war as an historical force, if only for this reason, that among the contributions made by war to the building up of nations there is one that peace can never dispense with, and which, when war no longer exists to generate it, will have to be generated by other means. No doubt the importance of war was exaggerated by an older school of historians; but to overlook it altogether, or even to belittle it, is the greater mistake. I would not accuse our pacifists of despising courage as an element of human character; they are often courageous enough themselves and sometimes, it must be added, warlike into the bargain; but I think they may be fairly said to have overlooked the difference between personal courage and that higher kind of it, in which the valour of the individual is combined with the spirit of discipline, becoming thereby social and co-operative, a much more powerful and valuable quality. A people composed of individually courageous persons is doubtless much pleasanter to think of than a people composed of cowards; and yet in the absence of discipline the former would be the more anarchic and probably have the shorter life of the two.

Now, it is precisely this type of courage—the disciplined type—that war has generated, and that armies and navies, though happily not elected by popular suffrage, have *represented* in the life of nations, and represented no less effectively than parliaments have represented the nation in other respects. I doubt if armies and navies are getting, from our pacifist historians, the justice due to them as representative institutions—as representing, namely, that element of disciplined or co-operative courage without which no organised society can survive. Certainly, I can think of

no other institution which represents it so distinctly and to the same extent. For though one can think of many institutions, such as a church, a political party, a trades union or an athletic team which demand discipline of their members and courage up to a certain point, I know of none other which goes the length of enlisting, training and disciplining its members on the express understanding that their lives may be required of them at any moment, and duties assigned them in the performance of which they are practically certain to be killed; and all this for wages that a trades unionist would scoff at. There are a few forms of service which come pretty near it in principle, though not in scope—the Merchant Service is one of them—but in none of these is the demand so explicit, so unmistakable, and so directly related to dangers besetting the community as a whole; for here the demand is not that a man shall be willing to lay down his life for his "friends" alone, but for his countrymen and his country. And, though a time may come, as some desire, when nationalism will have become a thing of the past, and patriotism "the last refuge of a scoundrel," who can doubt that the community of mankind would be built on the sand unless, somehow and in some form, it were furnished with the disciplined courage of men ready to die in defending it against disruptive forces from within, if no other. It has often been said of the League of Nations that its weakness arises from the lack of armed forces to sanction its findings. But ought not the weakness to be described in more general terms? Does it not rather arise from the fact that though the League has many a courageous defender it lacks the disciplined courage which the separate nations, barbarically perhaps, have embodied in armies and navies and trained to face death on the battlefield; and, lacking that, lacks also the dignity of a cause which men on a thousand occasions have proved themselves able and willing to die for its preservation? What, indeed, gives greater dignity to any cause than the willingness of men to die for it?

I think, therefore, that Carlyle (and the school of historians to which he belongs) is pointing a true moral, and one which a great nation can never afford to forget, when he represents the greatness of England as having one of its deepest roots in the disciplined valour of Cromwell's Ironsides, and the greatness of Prussia as built up round the disciplined valour of Frederick's armies. At the same time, it seems equally clear that our pacifists are wholly right in discouraging the kind of militarism that is fostered by the

contemplation of victories on the battlefield. The finest lessons that nations have learnt from war have not been learnt from victories, but from defeats, for it is then, in the hour of defeat, that disciplined valour best proves its quality.

This is notably true of our own country. Rightly understood, I can conceive of no history more inspiring to the young than a History of the Great Defeats of British Arms—which nobody, so far as I am aware, has yet had the courage to write. There has been a great multitude of such disasters, more than our popular historians allow us to suspect. My impression is that no great nation has been "licked" in war so often as the British; most of the lickings being attributable, perhaps, to a circumstance noted by Napoleon, that British armies, while composed of "lions" in the rank and file, have too often been led by "asses." Be that as it may, the list of our lickings is certainly a very long one; lickings in many ages and countries; lickings in Scotland and Ireland (English these), lickings in France, the Netherlands, Spain, Germany, Turkey and Russia; lickings in India; lickings by the Dutch in the reign of Charles the Second; by the Spaniards in the West Indies; by the French in America—until Wolfe, quite exceptionally, managed to lick them—lickings by revolted American colonies; lickings by Boers; lickings by Soudanese, by Zulus and by savages in general; ruined expeditions; fruitless attacks by land and by sea; capitulations and retreats; armies left to rot in Walcheren marshes, or ambushed and overwhelmed in Khyber Passes and trackless deserts, a solitary survivor escaping to tell the tale; Anson squadrons sent out to conquer a continent and returning years afterwards, reduced to one battered ship. If the general resurrection should take place as described by the Rev. Edward Young in the *Last Day*, it would be impossible to occupy any point in space near the surface of the earth without a risk of being hit by the resurrected bones of slaughtered Britons, flying through the air to the Judgment from their resting place on some lost battlefield.[1]

[1] The passage, of which the date is 1713, runs as follows:

> "Now monuments prove faithful to their trust,
> And render back the long committed dust,
> Now charnels rattle; scatter'd limbs, and all
> The various bones, obsequious to the call,
> Self-moved, advance; the neck perhaps to meet
> The distant head; the distant legs the feet.
> Dreadful to view, see thro' the dusky sky

And yet, in virtue of some quality of disciplined valour existing somewhere in our people we have managed to survive it all. Surely, if any nation can claim to have learnt by the things it has suffered, that nation is our own. Is not that the lesson to be dwelt on in times like this when we are threatened with a greater licking than any I have mentioned—a licking in *trade?* Is not that the lesson to encourage us in the present crisis, and would not the anti-militarists be well advised in allowing us to meditate on a record so inspiring? I do not claim that we are a well-disciplined nation; alas, we are not; but, thanks to the lesson of past lickings, I think we are better disciplined than some in the arts of meeting adversity, and may hope accordingly to be among the first to emerge from the crisis in the "general resurrection" we are all hoping for.

After signing a petition for a reduction of armaments, as a measure for relieving economic stress (which the present writer has just done), thought naturally turns to the question of finding a moral equivalent for war. That financial economy would achieve a gain if armaments were reduced, and a still greater gain if war were abolished altogether, and fighting forces become things of the past, is sufficiently clear. But how would the *moral* economy of the world be affected? Here the question is not so easy to answer. For there can be no doubt that war has played no little part, not only in the building up of nations but in forming our conceptions of the good life. Are not good and evil perpetually at war? Is not the sword of the spirit an appropriate metaphor? And who thinks it an offence to speak of the Son of God as "going forth to war," and of Christians as marching under "his blood-red banner"? Our moral vernacular is loaded with war-making metaphors; it is well-nigh impossible to write a page on any moral question without dropping into half a

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Fragments of bodies in confusion fly
To distant regions journeying, there to claim
Deserted members, and complete the frame.

. . . .

This sever'd head and trunk shall join once more,
Tho' realms now rise between and oceans roar.
The trumpet's sound each fragment mote shall hear,
Or fixt in earth or if afloat in air,
Obey the signal wafted in the wind,
And not one sleeping atom lag behind."

dozen of them. Just as our financial economy has grown to be what it is in intimate relation with the war-making needs of the State, so too our moral economy has derived from war-making elements that are integral to its structure, its vitality and its standards. And if in the one department the abolition of war would produce an immense saving of wealth, with its attendant possibilities, so in the other it would produce an immense disturbance and the need for readjustments all round, amounting perhaps to the re-education of the human race.

Not that this should be considered an evil. Nothing is an evil which forces on mankind the necessity of its re-education. The human race can hardly claim to be well educated as yet. But if war has contributed some elements which have perverted its education, it has contributed others which have furthered it, elements that cannot be dispensed with in any conceivable scheme for its re-education. The chief of these is disciplined courage, of which I have already spoken.

Never was the need of a " moral equivalent for war " more apparent and more urgent than now; but is it not equally evident that the said " equivalent " has not yet been found ? We are unquestionably confronted with great perils, not less formidable though less spectacular than if a foreign foe were threatening to invade our shores in overwhelming force. If ever a situation can exist in which it may be counted a virtue to be willing to die for our country that situation is before us now. Yet nobody has asked us to show this willingness, nor are we spontaneously showing it. We are being asked instead to make some relatively small sacrifices; to bear a little more taxation, on backs, it is true, that are heavily burdened already; to have our unemployment benefit reduced; to pay a little more for our beer and cigarettes, to cut down our establishments, to spend less on cinemas and to gamble less heavily at Monte Carlo. Such are the sacrifices we are asked to make; but some of us are not willing; and others, while admitting that they must be made, insist that the " other fellow " shall make them. All this shows our lack of disciplined courage. The moral equivalent for war has not been found though an equivalent for the peril of war is clearly before us.

Nor is it easy to find. William James, whose admirable essay on the subject is well worth re-reading to-day, saw clearly that a moral equivalent for war must be found if civilisation is to survive.

> "I do not believe [he says] that peace either ought to be or will be permanent on this globe, unless the states pacifically organised preserve some of the old elements of army discipline."

James was no enemy of the martial virtues, but confesses himself on the contrary a profound admirer of them, and yet a pacifist at heart. His proposal, accordingly, was not to suppress the war-making spirit, but to sublimate it, by directing its working on a new objective. He had what he called an "idea"—the idea of a new kind of war to be waged, not as heretofore, against one's fellow man, but against *Nature*. Huxley would have approved of that. This war against Nature has, indeed, been going on since the beginning of human history, but confusedly, without organised discipline, without strategy, without a unitary technique. James would organise it, make it a national art, inspire it with ardour, courage, and the high "traditions of the service." He would raise it to the dignity of a cause and give it a flag.

> "If now [he goes on] there were, instead of military conscription, a conscription of the whole youthful population to form, for a certain number of years, a part of the army enlisted against *Nature* . . . the military ideals of hardihood and discipline would be wrought into the growing fibre of the people; no one would remain blind, as the luxurious classes now are blind, to man's relations to the globe he lives on and to the permanently sour and hard foundations of his higher life. To coal and iron mines, to freight trains, to fishing fleets in December, to dishwashing, clothes-washing and window-washing, to road building and tunnel making, to foundries and stoke-holes, and to the frames of skyscrapers, would our gilded youth be drafted off, according to their choice, to get the childishness knocked cut of them, and to come to healthier sympathies and soberer ideas. They would have paid their blood-tax. . . . "

This "idea"—which reminds us of Carlyle's proposal for the "regimentation of labour"—is great and wise. Who can doubt, for example, that if every member of Parliament had served, *under orders and* "*for a certain number of years*," in James' army of dish-washers, the laws on our statute book would be wiser than they are; or that (for this must be

added) if those of them who *have* served in the army of dish-washers, as I imagine some on the Labour benches to their honour may have done, had also served in the army of bankers, not mentioned by James, without which the armies of dish-washers, tunnel-makers and the rest, would be apt to get into difficulties in respect to their commissariat. A great and wise "idea" unquestionably. But is it a moral equivalent for war? Would our gilded youth have "paid their blood-tax" when the nonsense had thus been knocked out of them?

Up to a point, yes; but completely and essentially, no. In none of the "armies" indicated by James, nor in any others of like nature that might be added to them, is willingness to lay down one's life under orders essential to the service demanded and integral to its very nature. All these vocations are indeed arduous and some of them dangerous enough. The individual "soldier" working on the frame of a sky-scraper must have a strong nerve, for he will be dashed to pieces if he takes a false step; but he is under no obligation whatever to give his life for the skyscraper nor for the "society" in whose interests he is building it. This is not to say that he is less brave or devoted than the soldier on the battlefield. He may be braver and more devoted. But the ethical conditions of his service are widely different; the one is not the "equivalent" of the other. Not equivalent in the nature of the risk involved, not equivalent in the moral quality needed to encounter the risk. In the one case, it is the personal courage of an individual acting freely as occasion demands; in the others, it is the co-operative courage of men facing death in disciplined loyalty one to another and to the "cause."

In the irrationality of war, if in nothing else—and I cannot but think that the attractiveness of war for us original sinners largely derives from its irrationality—there is something that separates its discipline *toto orbe* from the eminently rational discipline recommended by James; and the difference is hardly less between his disciplined contact with the "foundations of the higher life," no matter how "hard and sour," so salutary for our gilded youth, and that disciplined contact with *death*, described by Tennyson; "Theirs not to reason why; Theirs but to do and die." If we reflect on the episode, irrational to the core, which suggested these lines, an episode to which the war history of every nation has some parallel, we can hardly fail to realise that James' admirable "idea" does not furnish even a

practical substitute, far less a moral equivalent, for war. What James has given us is an extremely valuable suggestion for the social education of our gilded youth; but the moral equivalent for war, so urgently needed in the present crisis, is still unfound. The comment of the French Marshal is more applicable to James' "equivalent" than to Balaklava —"*c'est magnifique, mais ce n'est pas la guerre.*"

If other "equivalents" be examined, and many have been offered, the same conclusion awaits us. Whatsoever outlets for the love of danger or the spirit of adventure we may provide, training in strength and endurance, habituation to hard knocks taken without squealing, manly sports involving the team spirit, "playing the game" in all its forms, these, taken singly or taken together, are good, but they are not moral equivalents for war. None of them grasps the nettle. None of them is explicitly based on that willingness to die for the common cause which society justly demands of its members when it finds itself threatened with destruction, whether by armed enemies as in 1914, or by economic causes as now. None of them takes account of the fact that what we call the "supreme sacrifice" differs not only in degree but in kind from all other sacrifices demanded of men, a difference of which the writer of the Epistle to the Hebrews gives a cogent reminder to his readers, already visited with many persecutions, "Ye have not yet resisted *unto blood*, striving against sin." Courage may be involved in them all, even disciplined courage in some; but the co-operative courage expressly disciplined for a fighting encounter with death is lacking in everyone. The Battle of Waterloo was *not* won on the playing fields of Eton. It was won by the victors in face of a challenge which the playing fields of Eton, with all their salutary demands, do not provide, and it was lost by the vanquished (an important point to remember) under conditions precisely the same. And not only did thousands of combatants make "the supreme sacrifice" that day, but in many places—a significant difference—they made it *in rows*, without breaking their ranks, and lay as though they had been cut down by a mower's scythe. Even the gossiping Creevey, who visited the battlefield next day, was struck by that. Seekers of a "moral equivalent" should consider these *rows*, and what they symbolise for the new discipline that is to replace the discipline of war.

Dangerous as our state may be in the absence of a moral equivalent for war, it is only made more dangerous by

thinking we have found the equivalent when, clearly, we have not. It is certainly wiser to leave it unfound than to set it up in a fictitious form. And unfound I am content to leave it; but on one condition—that the re-education of the human race is vigorously undertaken meanwhile. The equivalent cannot be created by a "policy of planning," any more than a new religion can be invented, though that, too, may be equally needed.

What the re-education of the human race would involve is here too large a question to discuss. But I may say in general that the essence of it would be the breeding and multiplication of great citizens, and the training of them to that high condition of body and mind in which alone they can face the perennial danger that besets civilisation and competently perform the duties incident to democracy. This given, disciplined courage would arise spontaneously, creating its own forms, and the people in times of peril would stand together like an embattled army ready "to pay their blood-tax" and to fall *in rows* for the common cause. For is it not eternally true that nothing in this world is finally worth living for, unless it is worth dying for as well?

These results will be long in coming to pass, and the present emergency cannot wait for them. But, happily, the age-long discipline of war has not been thrown away on our people. It still survives, feebly in most of us, but strongly in others. These, we know, will stand firm. Minority though they be, their numbers are yet sufficient to present a formidable front to impending disaster. I think their example will steady the rest of us. Not yet are we sunk so low in cowardice and the love of comfort that heroic examples make no appeal. Not yet has anarchy wholly dispossessed us of power to respond to the word of command.

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RELIGION AND THE NEW KNOWLEDGE.

SIR OLIVER LODGE.

I MUST first ask what is meant by the phrase "the new knowledge." I may summarise what I understand by it, somewhat thus: (*a*) The fact that electricity is discontinuous, consisting of isolated positive and negative charges called protons and electrons. (*b*) The electrical constitution of matter, with all that that involves, and the consequent variability of mass or inertia, often wrongly attributed to the theory of relativity. (*c*) That the atoms of matter form a regular family series, and are all accounted for by groupings or revolving patterns of a fixed number of protons and electrons, on which their chemical power depends. There is a growing tendency to assume that the electric and magnetic properties of the atom are capable of explaining all its chemical behaviour. (*d*) That the inertia of matter is due to a magnetic field near it, which exists in *vacuo*, and like all magnetic fields is independent of any material concomitant. (*e*) That radiation is electromagnetic too, and is only produced by the acceleration or jerky motion of electric charges, so that the clashing together of opposite electric charges is the most powerful source known. (*f*) That radiation is thus only produced discontinuously, so that it travels in units, called *photes* or "photons," each of which must be absorbed or emitted as a whole. There is a deep-seated discontinuity, called the quantum, in every relation between ether and matter. (*g*) The extensive importance of the velocity of light in the scheme of physics is now emphasised, so that it enters into the expression for locomotion of every combined kind, and into all material or kinetic energy. (*h*) That all activity is in the space between the particles of matter, the matter itself being quite inert apart from those fields of

force. (*i*) According to the most recent theory, every particle is associated with a wave; waves govern the motion of a particle, almost as if they constituted it and were interchangeable with it; in other words, the distinction between waves and particles is getting obliterated.

Many of these ideas seem in themselves to have no connection with religious doctrines, but a difficulty does arise when they begin to be applied, as they are being brilliantly applied, to cosmogony. Some people have been upset by all this "new knowledge"; but on the whole it appears to me helpful and confirmatory, or, at least, not hostile. Certain speculations about the so-called fate or destiny of the universe are certainly depressing; but, then, they have no philosophic basis; they do not really treat the universe as a whole; they deal with the inorganic or physical universe only, and tell us what seems likely to happen to that. Let us take this point first and clear the ground.

Sir James Jeans, that highly competent mathematical physicist, has applied his great knowledge to the evolution of the solar system, the stars, and the nebulæ, limiting himself specifically to the mathematical and physical aspect of things. He has a plausible account to offer of the removal of the earth and other planets from the sun by tidal action; a theory which at present has replaced the old nebular hypothesis of Kant and Laplace. The formation of spherical bodies from a great cloud of revolving gas still holds good, and is substantiated; but when one goes into detail and reckons the size of the bodies that would thus be formed, one finds they are not planets but suns. The nebulæ are altogether on too big a scale to produce the comparatively small outcome of a solar system. A small nebula would not work in that way. Let me sketch the present form of the nebular theory. A revolving nebula or mass of gas does not shrink in discontinuous rings; the process is rather different. It whirls into an oblate spheroid, the oblateness becoming more and more marked, until it becomes shaped like a double convex lens with a sharp edge, which might come off like a ring, but which, being unstable and liable to tidal action, is much more likely to throw off matter at two opposite poles, in the form of two streamers, which then wrap themselves round the original mass, forming a spiral round a sort of nucleus; like two great spiral arms emanating from the central body and surrounding it. These spiral nebulæ are many of them still in existence, and are seen in various stages

of evolution in the heavens, and their appearance strikingly confirms the mathematical theory of their formation. The arms are, however, too long to be stable; they gradually break up into nodules or approximate spheres of gas, which gradually separate further and further from their centre, so as to form a great system of revolving spherical bodies, which ultimately separate out and become more or less independent. It has been found possible to calculate from physical principles the size or mass of these spherical bodies into which the original nebula can break up. They turn out to be much bigger than planets, in fact, to be of the size of stars, that is, of suns. Some of them are much bigger than our sun, and some are smaller; but they average out to about that size. Hence the nebula is not a seat of evolution for a solar system; it is much bigger than that, of a wholly different order of magnitude; and the assemblage to which it gives rise is a constellation of suns, or in its earlier forms a cluster of stars such as are also seen in the heavens. The nebular hypothesis holds true in a modified form, but the result is a constellation. It is a slow and majestic evolution on an extraordinarily large scale that we are witnessing both in the telescope and in the mathematical formulæ.

It is to be noted that the process of evolution is still going on, that the stellar universe is not complete, that suns are still in process of formation. We cannot see the operation actually performed in such a period as our own lifetime. The motions are not really slow, they are so distant and on such a tremendous scale that to our vision they appear stagnant; but we can easily infer that that must only be an appearance. We see the process of evolution at various stages simultaneously, here at one stage, there at another, just as we see the plants growing in a garden. We are in the position of a creature who could only see the garden for some twenty minutes, but who, having first perceived that growth is possible, would realise that he was looking at plants in various stages, some of them in leaf, some in bud, some in flower, and some in fruit, and could surmise that in every case these stages succeed one another; so that their stationary aspect is only subjective. We are witnessing, in fact, the evolutionary process of creation going on.

Our own system of stars is the result of one of these great nebular evolutions, and the particular nebula to which we belong is called the galaxy or Milky Way; the immense size of this can be brought home to us by many illustrations, such as will be found in Sir James Jeans's books. Although so

gigantic, it is but a small part of the whole of the universe. Far away in the depths of space the other nebulæ are still revolving, throwing out spiral arms, and producing each its own system of stars. There is nothing in all this to perturb or cause apprehension. Rather it emphasises the majestic scale on which the universe is built. The light which comes to us thence, feeble though it is, brings with it a mass of information which we are learning how to interpret. The spectroscope enables us to analyse the bodies chemically, and to ascertain the nature of the atoms which there exist. We are also able to compute the size of bodies, to weigh them or determine their masses, and to find that the atoms are most of them of the same nature as we experience here, that they vibrate at precisely the same rate, emit light in the same way, and, in fact, are obedient to the laws of physics which we already know and are familiar with. One system of law and order rules throughout all the vast extent. There are many varieties in detail, and some of the elements may be rare here and plentiful there; but they all form part of what we study under the atomic theory, and they fit into our series of elements, each of them numbered and constituted in a certain fairly understood way.

The first lesson thereby taught us, from the point of view of religion, is that the universe is *one*, all of it demonstrative of a single scheme, one system of law and order reigning throughout. Incidentally, we find also that our particular cosmos of stars called the Milky Way, consisting as it does of thousands of millions of suns, is also still revolving; and that our sun as a constituent star is revolving with the rest, round the centre of gravity of the whole, at a rate now estimated at 200 miles a second, carrying with it, of course, its family of planets. That is a detail, but it is confirmatory of the main view. It is a newly perceived, formerly quite unsuspected motion, only discovered during the present century; a motion of which we are entirely unaware by ordinary observation. We have long known that the earth is travelling round the sun at the immense speed of nineteen miles a second. But now we find that the sun itself, though apparently stationary, is travelling at a still greater rate; which shows how little our senses tell us of any kind of locomotion except the locomotion of pieces of matter relative to one another. It is part of the doctrine of relativity to assert that such relative motion is all that we can possibly ascertain. So much for the nebulæ, which are so numerous that they can only be counted in thousands of millions. They

evolve into suns. Next we may attempt to follow what has happened to a sun.

Our sun is a mass of gas, held together by gravitation, and thus compressed into a mass on the average slightly denser than water; still exceedingly hot, the temperature at its circumference is 6,000° C., while the temperature at its centre is estimated at 40,000,000°, or even more. A hot body like that is radiating energy away; all bodies at a high temperature must radiate, that is, must give out energy to the ether, and so gradually cool down. The sun is in process of cooling down, except that its gravitational shrinkage generates a great deal of heat, and last century was thought to generate all the heat that it emitted. That was Helmholtz's theory for the evolution of heat and light from the sun and other stars. But it was soon found that this shrinkage, or falling together of the materials, is only sufficient to maintain the radiation for a limited period; a period long when compared with human life, but short when estimated in terms of the duration of the heavens. Some other source of energy had to be discovered, and this has been put into our hands by the recent discovery about the electrical constitution of matter. It seems that the solar visibility, or radiation energy, depends on the constitution of the atom. The atom is composed of positive and negative electricity, separated from one another, and is, therefore, endowed with tremendous energy. Under certain conditions it is possible for positive and negative electricity to discharge into each other, and give a spark or flash of radiation. The energy thus stored up in an atom ready to be liberated is very great, and when we consider the number of atoms that go to form a visible mass of matter, we find that atomic energy exceeds in amount anything which on the earth has hitherto been experienced. We only attempt to use here the combination of atoms into molecules, a chemical action constituting what we call combustion; to this we owe the heat of our furnaces; an amount of heat utterly insignificant as compared with what could be got by the clashing together of the parts of the atom; though this last appears only to go on under the conditions of pressure and temperature in the interior of stars, but it is sufficient, if it does go on, to account for all their radiation continued during untold æons of time.

Radiation thus generated is of a very high order, higher even than X-rays, but only a small portion of it gets out, most of it is beaten back by having to struggle up through the superincumbent material. The radiation has great

energy, and exerts great pressure, able to overcome to a large extent the force of gravitation, and this accounts for the enormous size of some of the stars. The waves as they struggle up get lengthened by a known process, until they get down to the rate of vibration or wavelength which is able to excite the eye. We see the stars only by this leakage of radiation, which has thus become visible light. The light itself contains a great deal of energy, which has been produced by the destruction of matter, or rather by the conversion of matter into radiation in the interior of stars. Thus the stars are visible by pouring out continuously this radiation at the expense of their own material. It is now a commonplace to say that the solar energy, upon which we all depend, is produced by the loss of matter from the sun at the rate of 4,000,000 tons every second of time. This applies to all stars, and so the amount of matter in the universe appears continually on the decrease, and the amount of radiation on the increase. Thousands of millions of stars have been emitting radiation for thousands of millions of centuries. One may well ask, where is all that radiation, and what has become of it? We know that radiation is never extinguished, the properties of the ether are perfect, and the vibrations go on with undiminished intensity, spreading out and getting more dilute as the distance increases, but never turning into anything else so far as we know at present. If this process continues, as from the point of view of the physical universe alone it must continue uninterruptedly, it cannot go on for ever. The picture of the universe presented to us is a running down universe; and if all the matter in the universe thus turns into radiation, the result will be a rise of temperature of the whole, of a few degrees above absolute zero; that is, a cold universe consisting of radiation and nothing else. This has been considered a depressing result; for it is as if the majestic frame of things, which we now see in full blast, must ultimately come to an end as a tale that is told, leaving not a wrack behind.

But such a speculation about the fate of the universe is founded upon the data now available to mathematical physicists, who definitely limit themselves in their considerations to the physical universe alone. A prediction like that is an attempt at philosophising, and philosophising with insufficient data. We cannot philosophise unless we take not only the physical universe into account, but the *whole* universe, as General Smuts in his Presidential Address to the British Association and in his book, *Holism*, has been telling

us. We cannot understand really the smallest thing unless we take the whole, every aspect of it, into account. A theory of what is to happen to the universe as a whole is impossible for us with our present knowledge. Mathematical physicists can trace the fate of the material universe so far as the data allow. If they limit themselves to purely inorganic data they arrive at the conclusion I have indicated. Yet conspicuously the universe contains far more than matter and energy, it contains a number of things which physics does not take note of, and which if taken into account may upset the conclusions and render them quite futile.

Moreover, even in physics alone there are many discoveries in the womb of the future still waiting to be made. We have only recently discovered that matter turns into energy. Why should we not, in the course of years, discover that energy can turn into matter, that the process is reversible, and that we have taken only a one-sided view of it? There are many facts now beginning to be known which hint at such a process, that is, at the reconstitution of matter out of radiation. Whether this is ever discovered or not, I would not build upon it too energetically. My belief is that it will be found that the running down of the universe is only a human conception, and that it need not really come to an end in the dreary way now imagined. If that should be the end, it must mean that the universe had a beginning, else it would have run down already. The fact is we are not entitled to speculate with our present knowledge upon these tremendous themes. One cannot imagine a time before the physical universe came into being, nor can we imagine a time after which it will have ended. But what I want to insist is that even if these temporary deductions are substantiated, and if it be found that matter is, after all, an ephemeral phenomenon, which having gone through a process of evolution will come to an end, still we need not be depressed. For the amount of matter in the universe is after all very insignificant as compared with the extent of space. The heavenly bodies are at an enormous distance from each other. The things that should really attract our attention are not the particles of matter, but the properties of the space between them. And when we turn to that, all our ideas are modified. We gradually find what the true function of matter is.

Here and there, or at any rate here, a sun has been deformed by tidal action till it shot out a number of planets, which cooled down rapidly, till one of them stays at a

temperature near 300° above absolute zero, so that atoms combine into complex molecules and liquid water can exist; under these exceptional circumstances life has somehow managed to get hold of that matter and animate it. Incarnate life requires very narrow limits of temperature for its existence, and is impossible in connection with most of the matter in the universe; life only makes use of matter in the rare case when these conditions are fulfilled. We only know of life when it is incarnate in matter, but that is due to the limitation of our senses.

We have been celebrating lately the achievements of Faraday and Maxwell. Now many philosophers since ancient times have called our attention to the "void" or space between the atoms: and Faraday especially showed that there in that space all the activity and forces of the universe exist, that matter is only the means whereby we investigate these forces. The important thing is not the atoms of matter, which are inert, and only move in response to the forces acting on them: the thing that really requires attention is the nature of those forces and of the space in which they exist. An electric field, a magnetic field, a gravitational field, even a cohesional field, and the force of chemical affinity, are only indirectly associated with matter. They are all properties of what we call vacuum, that is, of the ether of space. This is a thesis I have elaborated in many of my books, and so far it is quite orthodox physics. Faraday showed that if you move a wire in the space near a magnet, a current is produced in that wire. The space in which it moves is modified, and the modification was expressed mathematically by Maxwell. We do not fully understand all that is going on, but the result is undoubted. The space is modified so that its properties are demonstrated by the movements of a metallic wire. And even when we get an electric current, we cannot directly perceive it, we can only realise that there is a current by some effect which it produces upon matter. It can heat a wire till it makes it red hot, or it can deflect a magnetic needle in its neighbourhood, or it can decompose a liquid; in every case it produces some material result which we can observe. And that illustrates in elementary form what the function of matter really is. Its function is demonstrative. It shows us activities which otherwise would not be apparent. The activities do not really belong to it. Matter is not so important as we naturally think it is. It is only important to us because without it we should be unaware of what is

going on: it is the only thing that appeals to our senses. For some reason or other our senses tell us of nothing but matter. We cannot appreciate electricity or magnetism or even light except by their effects upon matter. Our eyes do not tell us about light itself, but about the material body which is illuminated. What we see is a material object: it may be dust dancing in a sunbeam, but it is all we see of the sunbeam. Our knowledge of light is an inference from the behaviour of matter. So is an electric current, so is a magnetic field. In short, that is the function of matter generally: it manifests and displays to our senses activities which themselves have an existence apart from it.

I would apply this consideration to the matter we call animated. We do not see life or mind directly, we only study them by the behaviour of an organism which is animated by them, that is by what we call its "behaviour." All we see of each other is the bodily organism, all the rest is an inference. We cannot tell another person's thoughts except by his actions, or by the vibrations which he may choose to emit. I do not say that this is inevitably so, but it is so under our present circumstances, and supplied only with our present senses. If our senses do not perceive matter, they perceive nothing. We live in a mysterious universe, full of all manner of things of which we are conscious, conscious in our own selves. We appreciate colour and beauty; but colour after all is only vibrations—that is all we get from a coloured object; we interpret the rapidity of vibration as colour. Colour and beauty are interpretations of the mind. So are art and music and literature: they are all interpretations. They can be recorded or incarnate in matter, which we then call a work of art; but the work of art in itself consists only of pigments on canvas or black marks on a bit of paper. All the reality of these things is in the region of the unseen, the unsensed; they are all mental interpretations.

Our sense organs, including the brain, only give us indications of the physical objects around. The realities underlying them we have to infer; and we do this, not by the brain, but by the mind. It is *yourself* that admires a landscape or a work of art; it is yourself that has the feelings of beauty and design; aye, and it is *you* that have the aspirations and the hope and the love of which you are conscious, not any material organism or any part of that organism. The organism we have ourselves constructed, and we use it for a time. Matter seems to have an ephemeral purpose; it does not last very long, it wears out and decays,

and ceases to be useful; then we discard it. But it never was a part of ourselves, it was the instrument we used for manifestation, for making signs to our fellows, and for getting signs from them; its function is to display, to manifest, what by all analogy is not in matter at all but in space.

What life and mind are I do not pretend to say; but I know that they are not functions of matter. We employ matter in the exercise of our functions at present; but there is every reason to believe that we ourselves continue to operate even apart from matter, and that the destruction of the material organism only interferes with our mode of manifestation. Things which are not associated with matter have no obvious effect upon us, at least to our present senses. They are outside our ken, and we are apt to imagine that they do not exist. The Behaviourists are physiologists and pathologists who study the behaviour of an organism, its reaction to drugs, the way its own gland-secretions act upon it. They study these things with minuteness and skill, and their results are well worthy of our attention, so long as we remember that they are telling us about what they know and can observe. But we cannot trust them to philosophise; they are attending to a small part of the universe, a merely material part, and we cannot philosophise on a part only.

The business of science as now understood is mainly concerned with mechanism, some time ago we might have said with material mechanism, and that is what chemists and most biologists are still mainly concerned with. They still very often limit themselves to a study of the structure and behaviour of organisms; all which is in the main true, but by no means the whole truth or the most important truth. The physicist has gone beyond material mechanism, he deals with radiation and many etheric phenomena; and now, under the influence of Faraday and Maxwell and Einstein and other great philosophers, is more concerned with the phenomena that occur in space, or in what may be called the ether.

A physical theory is by no means complete when it describes the behaviour of matter alone; it is constantly referring to the fields in space, wherein all the energy and activity really lie. It teaches us that matter is inert, takes the path of least resistance, and obeys the forces acting on it with perfect accuracy; but it has no spontaneity, no real energy, it is the index and the sign of something which eludes our senses, but which we can infer by its aid.

If, then, we find in ourselves, or have reason to infer in the universe, things which are only partly displayed by matter and still largely concealed, we need not deny their existence because they are outside our sensible ken. We may feel assured that they are realities, the ultimate realities of existence, and that they will last much longer than any material mode of displaying them can possibly last.

The universe seems to me a great reservoir of life and mind; realities which I believe exist in space, and which will survive the birth and death of worlds, and continue long after the material universe has run down, if its fate is to run down. Life and mind do affect the material universe in a way which is not open to prediction or calculation. Laplace's calculator could predict all the behaviour of the molecules, given their positions and velocities and accelerations at any one moment; but he could never attempt to treat in that way the action of a live thing. That has a spontaneity beyond his equations. The physicist ignores live things, keeps them out of his laboratory, does not attend to them, they are too complicated. A biologist attends to them, but only from the point of view of their material structure. To philosophise truly requires more than that. The region of religion is not concerned with material objects, it is concerned with the higher entities of which we have some dim apprehension in ourselves. We have to trust our instincts and intuitions. We infer these higher entities in human beings; but spiritual or cosmic existence is not limited to human beings; there are many entities which give no material sign of their existence, and which can yet operate on the physical universe.

How do we know about the effect of Mind operating on the physical world? We see it all around us. Mind is an organising arranging principle, sorting and ordering. When life and mind are absent, so that unorganised forces are dominant, operations go on, but they always tend towards disorganisation and chaos; order is shattered, buildings crumble into ruin, refuse accumulates, organisms decay. There is a tendency to return to chaos. When life and mind operate, a reign of law and order begins, things are built up into organised structures, and are prevented from tumbling down, except when inorganic forces are too strong as during a tornado or an earthquake. Under the influence of Life a tree is compounded of the elements of what is commonly called soda water, put together with the aid of sunshine; the solar energy is directed to that end and to the production of

the oxygen essential for animal life on this planet. The energy is derived from the sun, but is controlled and directed by life into structures which otherwise would be impossible: an analogy is the directing power of an organist over the energy supplied by the bellows; he arranges it into music. So also a formless mass of wax becomes changed into a honeycomb, by the agency of life. The stones of a quarry are arranged and converted into a cathedral, and an element of beauty is added by the designing power of mind. Wherever we see order and beauty we may know that mind has been at work. A mindless operation, such as often occurs in the inorganic world, usually results in an increase of disorder and mere random confusion. So much so that some hold that disorganisation is bound to occur sooner or later, and that that must be the end of the present cosmos. But they are leaving out the controlling, guiding, ordering effect of mind. Clerk Maxwell showed how the activity of sheer intelligence could sort out confusion into order, could redistribute heat which had run down into inequality of temperature, and could undo the effects of the second law of thermodynamics. People are apt to make too much of that law; it only applies to inanimate physical agency. The physical universe left to itself may be running down; but mind can reorganise it, can reverse the process, or can start it afresh.

If we are raising stones to form part of a structure, it takes the same amount of work to place them in positions of ugliness as in places where they will add to the beauty of the whole. This is the result of design. Can we not see evidence of similar design in a bird's feather, an insect's wing, aye, even in a crystal structure? The design is deep-seated, not obvious as it is in the work of a human artificer. The things as it were make themselves—measures are taken to that end—a still higher feat of architecture; but they positively shout that Mind has been ultimately responsible for their organisation.

Why do we not bring theology more prominently into science? For a very good reason. It would be shirking the issue, it would be jumping all the intermediate steps. Everything is done by God; but it is our privilege to find out how; to understand the mode of working. Mind does not act directly, it acts through certain processes and intermediate stages which can be understood. The mechanism seems to run of itself: that is what perfect mechanism often seems to do, to a superficial observer. The business of the scientific

enquirer is to ferret out the details of the mechanism, whether it be chemical mechanism or any other, and to ascertain its object. Every result has a cause which can be traced. We can point out the stages of the process, we can trace the operation of the secretions which bring a result to pass. To decline to do this would be to throw up the sponge and admit defeat. Sooner or later we may have to admit that we can penetrate no further, but we postpone the collapse of our scrutiny as long as we can. We are conscious of some planning and designing power in ourselves, aye, and of some creative power. A poem or a drama or a work of art is in a sense a creation. It had not previously existed, its parts were put together and arranged in due order by a mental effort. We can learn from that, in infantile fashion, what creation feels like. The greater the Artist the more he is hidden, concealed in his work. Not much is known about Homer or Shakespeare. We can hardly follow all the steps by which they proceeded on their way to the small kind of perfection which they managed to achieve. How can we hope to follow all the operations of the Creator of the Universe save in a spirit of awe and reverence, that is, in a spirit of religion? Science probes and investigates, religion accepts and worships. There is room for both, in different moods. If we attempt to mix them there is confusion, there may appear to be conflict. Some people avoid the conflict by keeping the two moods or atmospheres distinct. That is legitimate enough. But if we can contemplate the whole in a spirit of unification, we shall attain a calmer and nobler philosophic standard, more worthy of our human attributes, more akin, we may conjecture, to the Divine.

We have learnt even in physics that there are mysterious guiding entities. We call them waves, or we call them *psi*, and have begun to deal with them, though we do not know what they are. I am inclined to speculate and say that these things of which the first glimpse has been caught by recent physics may be part of the manifestation of life and mind, and that it is by their aid that mind operates and guides events in the physical universe. This speculation may be wrong, but whether wrong or not, we may be certain that spiritual entities exist, and have far more to do with our actions and our thoughts, our hopes and sublimer feelings, than we have yet been able to imagine.

The unseen universe is a great reality, that is the region to which we really belong, and to which we shall one day return. We are only associated with matter for a time; we

can use it thankfully while we are here, but need not make the mistake of assuming that it is all that exists. In ourselves we know better. A church in every village testifies to belief in the existence of a spiritual world. We are still groping after God if haply we may find Him. Let us not be perturbed by the mechanistic teaching of science, but accept it for what it is, a true and laborious attempt to interpret the meaning of the things around us, a finding of pebbles on the beach, as Newton said, while the whole ocean of truth extends unexplored before us.

So far I have dealt with religion only in general terms. But it seems to me that what I have said about the functions of matter are very applicable to such a problem as that of incarnation. We are all conscious of being spirits, we do not know in what form we previously existed, but we are sure that we shall continue to exist, and that meanwhile we utilise the matter of this planet for an episode of education and struggle and effort; having freedom to obey or disobey the laws which we find in operation here, and on the whole suffering if we disobey them. We have learnt something about the nature of this matter, which is to us a foreign body somewhat difficult to deal with. We do not know very much about it, though for some three centuries we have made heroic attempts to understand; we find that it is built of atoms, which are not indivisible specks as we used to think, but are built of electrical particles on the pattern of a solar system; also that they have the power under certain circumstances of converting themselves into a flash of radiation, and so becoming dematerialised. The animated particles which constitute our bodies can do many surprising things, can perform heroic acts, can display self-sacrifice and human feeling and love and many of our higher attributes. So much so that even our bodies by their structure display something of the purposes to which they have been put: so that a saint or a great man can become the object of veneration even in his bodily form. How far that can be carried we do not know. The soul constructs the body, and a mighty soul may have an influence over the body such as we ordinary folk can hardly imagine.

Our belief is that there was one Personality who chose to become incarnate in matter some nineteen hundred years ago, for the purpose partly perhaps of acquiring experience of that state of existence, but mainly for the sake of helping those who thus became his brethren; and lived such a life that the very matter of his body became on a certain occasion trans-

figured and shone with an unearthly light. We are also taught, and some of us believe, that when by the priests and orthodox people of his day he was put to death with the utmost ignominy, his body was so transfused with the spirit which had animated it that it dematerialised and left the tomb empty. There is nothing in that which seems to me impossible or incompatible with the line of future discovery about material processes and the influence of the spirit on the body. I have often wondered what instinct it was that caused the Church, and let us say that good and enlightened man Bishop Gore, to attach so much importance and to concentrate so essentially on the empty tomb. It does not help the doctrine of survival: surely in preaching about our survival as analogous to the Resurrection, the empty tomb constitutes a real difficulty. Our tombs will not be empty: though the doctrine led people to imagine that in some future day their tombs would be empty too, that their discarded bodies would be resuscitated and once more animated by the rejoining spirit. That is clearly false.

Why then should His tomb have been empty? Why did his resurrection differ from ours? Is it that he anticipated a future higher grade of mankind? Was his spirit so high that it not only animated the body, but changed it, altered the perceptible material form, so that in a literal sense he became the firstfruits of them that slept? And is it some germ of this perception that has led the Church to formulate the doctrine of a bodily resurrection, at least in his case? It has nothing to do with the forty-day Appearances: the old tortured body was not necessary for them. But it seems to me quite possible that his case was an anticipation of what in time may happen to many, that after a long course of evolution, our bodies too may become dematerialised, and that all the repulsive paraphernalia of burial or burning, to get rid of the unwholesome residue of de-organising or disintegrating matter that we leave behind, shall no longer be necessary. Not that our bodies will rejoin the spirit, the spirit will not need them, it will have a spiritual or etheric body of its own. Our present material bodies are formed of earthly particles, and to the earth they will always return; but perhaps they need not always go through the processes of decomposition which to many are so repulsive. The atoms themselves may separate and so spontaneously disappear from our ken; and the body, having served its purpose, may be not only discarded, but may cease to be. I do not know if this will ever be the fate of the higher portions of humanity,

it is a long time ahead yet anyhow, but we need not shut our eyes to the possibility. And if we find the evidence good, we may adhere to our faith that our Elder Brother had already attained this high eminence, and that the tomb could not hold the body which had been animated by so lofty a spirit.

The human race has a long time ahead of it; astronomers tell us the planet will still be habitable millions of years hence. Evolution is still going on, and what changes may occur in all that time we little know. But I am now speculating beyond the bounds of physical science, I do not know what is possible and what is impossible. All I can say is that I see no reason to doubt the possibility, and that if our faith and intuition lead us in any such direction, we need not assume that our present knowledge of the universe is sufficient to enable us to deny it, or to pour scorn upon those who hold the belief. Let us not be dogmatic either way. Our Master undoubtedly pre-existed as the Eternal Christ, and is as living and active to-day as ever He was, having acquired the power of omnipresence and many other faculties of which we have no present knowledge. He lived on earth for a short time as Jesus of Nazareth, and met with that rejection and contumely which awaits all pioneers; but already he has influenced and redeemed the world to an amazing extent. All the meaning and consequences of that Incarnation we are not likely to know, from any arguments based on scientific procedure. We can be thankful that he has revealed to us part of the nature of the Deity whose power and majesty are revealed by science, but who has other attributes of love and simplicity and affection. These truly human attributes of God were revealed by Christ. He and the Father were one in plan and intention; he was perfectly obedient to his Father's will. He foresaw that only thus could the Kingdom of Heaven arrive upon earth. His prayer was, and it is ours too, Thy will be done, Thy Kingdom come.

OLIVER LODGE.

LAKE, SALISBURY.

THE HUMANIST REVOLT AGAINST THE TYRANNY OF SCIENCE.

PROFESSOR LOUIS T. MORE.

It is most surprising, and somewhat disconcerting, to find that what is now labelled as the New Humanism in America should have become a topic of such public interest as to form a part of general conversation, to be debated on the lecture platform, and to vie with the newest cosmogonies tossed off from the fertile pens of Eddington and Jeans. During some thirty years past a small group of men had developed an educational discipline, which they believed gave dignity and value to human society, and inner happiness and contentment of mind to the individual. They found that a certain serenity of mind followed from obedience to intellectual and moral laws as physical security resulted from observance of natural law. These men expressed their views from time to time, but they were largely unheeded by the reading public and were scorned by those critics who, under the example of Mr Mencken and his sort, delight to think of themselves as an intelligentsia whose creative powers must be so spontaneous that the least moral or intellectual restraint would utterly imprison the flood of their genius.

While these New Humanists have a central philosophy in common, their approach to it is often by such different paths, and their ideas on most questions, especially on that most important one of all, religion, are so individualistic, that I do not believe they can be classed in a closely-knit school of thought. At least, this is true of those older Humanists, Mr Babbitt, Mr Mather, and Mr Paul More, whom I know best. And I sometimes fear lest the younger Humanists, who have subscribed to their philosophy, will in their enthusiasm draw up a creed, and will attempt to excommunicate others because of unessential differences of belief. Humanism will not

become a creative influence unless it continues to permit individual freedom of ideas and to hold fast only to its central philosophy.

It seems to me that the Humanists are bound together by only one essential article of faith. They have the common conviction that man, as a self-conscious and living being is, so far as we can learn, a unique entity. By self-consciousness I include those intellectual, moral, and spiritual qualities which come from the reason, judgment, and anticipation of the future. So far as we can see this consciousness is *sui generis* and is not a natural or characteristic activity of life or matter, since both of those can exist and act without it. Consciousness has thus its own phenomena and laws which can be determined only by a study of human experience, and not by objective experimentation on animals, plants, or matter alone. In other words, Humanists are dualists in philosophy and eschew the attempt to unite the subjective and objective worlds by a single discipline.

If consciousness were an entity which could be completely isolated our philosophy would be simple enough. If we could agree with Descartes that it, or the soul, existed as a distinct organ situated in the pineal gland, or with Newton that it was a *sensorium* located in the brain, or if we had a proof that it persisted after death, the problem would be at least a definite one. But during our mortal existence, at least, our consciousness is intimately related to our life, and the laws of our life are common to those of all living bodies. This complication is increased further by the fact that life, in turn, is bound to a corporeal body whose stuff and actions are the same as those of the physical world.

Immersed as we are in so complex an environment, we are like shipwrecked sailors struggling vainly in a vast sea of doubt unless we can agree on some acknowledged facts as a starting-point from which to reason. The geometers recognised that there could be no science of geometry unless some fundamental axiom could be accepted by all geometers as true; and they have held to the belief that the straight line is the shortest distance in a perceptive world; so also the physicist with his axiom of conservation of substance and energy. In a larger sense, the philosopher must accept self-consciousness as an absolute fact; that is, he must have, or must assume to have, an intuitive knowledge of what may be called the plan and order of the universe which will permit him to judge between truth and error. Unless he has such a basis of real knowledge from which to reason, his logic

is but a play of words. It is said that although the sceptic Hume would argue away the universe in his study, yet he confessed his life was conducted as if he were guided by a conscious free-will or by what I have called intuitive knowledge. It is only from an accepted axion of absolute truth that we can interpret the laws of life and matter by objective observation and reason. It is the fashion of the day to believe just the contrary. We are told that the truths and facts of our consciousness are to be found only by observing and interpreting chemico-physical phenomena. Somehow from *things*, which are neither alive nor conscious, we can learn what life and consciousness are. It is much the same as saying that those things which can be known only by the mind, prove the existence of the mind.

Our conscious life is passed in a universe of three planes. I have already spoken of our own subjective plane of sensation, reason, and emotion which comprises our human world. Its facts and laws we must assume to be absolute, since by them we become aware of everything else. They form the standard of comparison for knowledge just as the Imperial yard-stick is the standard to which all other lengths are compared.

The second plane embraces those phenomena which appeal to us as sensations. By our sense organs we perceive a flux of events from an objective or natural world. But, in spite of every effort, we can go no further than to create an artificial world which we hope may be an image of a real world, because our contact with it is not immediate but must be interpreted subjectively according to the laws of the mind. For example, we have formulated laws of light which are quite independent of our sensation and laws of sight. And all the phenomena of this natural world, which we interpret as due to a common energy of motion of matter are transformed into the separate and unrelated sensations of sight, temperature, sound, etc. Even the habits and characters of animals and plants can be imagined only so far as they conform more or less to our own. And we are hopelessly confused unless we can liken their powers to our own; thus the migratory power of birds, and the extraordinary instinctive habits of insects are quite beyond our comprehension because we can find no similarity to them in our own habits and powers.

So, also, we are conscious of a third world, whose phenomena are those of the spirit and whose laws are the principles of good and evil; and here again we have the

conviction that its eternal ideas are the archetype from which we derive our own judgment of the future consequences of our acts. And this anticipation or judgment of the future is the basis of religion and of good and evil. It is because we are convinced that animals are unconscious of the future consequences of their acts that we free them from the responsibility of morals. To say that animals are self-conscious and know the future effects of their actions and, at the same time, not to hold them morally responsible, is a plain confusion of ideas. For example, the sin of murder does not arise from causing the present cessation of life but in knowingly preventing its future continuance. As we must imagine Nature and the natural laws to be in conformity to our observation and reason, so we must pattern God and the spiritual laws in the image of our own spirit. The existence of this spiritual nature seems to me to be as essential to the definition of a man as is his corporeal body, and as far back as we have any records of the activities of man we have indisputable proofs that he had a highly developed religious sense. Obedient to the dogmatic statement of the biologists and anthropologists, the *genus homo* has been specified only by the dimensions and functions of his animal body; and those qualities which really signify his individuality are ignored or are casually stated to have developed after he was a man. Someone finds a fragment of a skull, or some bones of a prehistoric animal, which has left no record of any of these distinctively human activities. If the body which is reconstructed on the basis of these fragments is sufficiently distinct from the skeletal structure of an ape, it is labelled the *Piltdown man* or the *Neanderthal man*. God alone knows what this prehistoric animal was, but it certainly was not a man. We have been so obsessed in showing the similarity of our bodies with those of other animals as to forget entirely that man is *homo sapiens* and is unique in possessing a self-conscious mind. It is not strange that our living bodies are like those of other animals, they have exactly the same functions to perform. I am quite willing to admit a comparatively close similarity of man as he exists now with a Neanderthal, a Piltdown, or an ape, or a dog, so far as his animal form and habits are concerned, but I claim that there is an even greater gulf between animals and man when self-consciousness is considered than there is between chemical matter and life. If self-consciousness were a necessary product of evolution, it would be reasonable to suppose that plants and the simple forms of animals would

show some rudimentary trace of such self-consciousness as they do of organic functions, and that life would have produced this characteristic in several strains; but even the dyed-in-the-wool evolutionist Huxley maintained that when man appeared natural evolution ceased. This is equivalent to saying that there is one evolution or development amongst animals and plants, and another in self-conscious man, but not an evolution common to both. And just as the earliest fossil remains of animal and plant life prove that the essential organs and factors of life were even then developed and clearly differentiated from chemico-physical activities, so the earliest historical records of self-conscious man, wherever he has been found, show that he was extraordinarily like us in the essential qualities of the mind—having the same sense of beauty, the same faculty of speech, and the same conviction of a spiritual nature. To discuss the forms of life prior to the record of fossil remains or to discuss the mental characteristics of men prior to the time he left to us any historical records is, and must always be, sheer guessing. The age-long discussion of philosophers and psychologists as to the existence of the human mind, and their attempts to explain how it originated, if it exists, seem to me utterly futile. By what shall we determine the existence of the mind, except by the mind; or how shall we decide on the validity of the reason unless the processes of the reason are valid? No physicist in his laboratory could obtain any results, if he first denied the existence of what he is trying to study. It is only by first postulating that our conscious minds are the criteria of truth about ourselves, that we can hope to find the truth about things other than ourselves, or, at least, as they appear to us.

The Humanist is not concerned with the origin of self-consciousness. He accepts its existence as axiomatic. His chief interest is to develop this distinctive character of man and he is convinced that the one and only way to achieve this purpose is to study and compare the acts and thoughts of men who have lived and have left their record of wisdom and folly. From this education, he can discipline himself and train his judgment to choose wisely for the future, both for his own advantage and for that of his fellows. And in order to live wisely and fully, he must also learn the laws of his environment. The well-balanced life is that which gives a due regard to both the natural and the spiritual laws and cultivates to excess neither science nor religion. It is far more difficult for us to preserve an even balance between our

physical and spiritual qualities on the central pivot of our humanity than it is to poise a material bar exactly on a sharp fulcrum; experience teaches us that there will always be an oscillation towards the one side or the other. He who approaches nearest to the true-balanced man, is the ideal philosopher as defined by Plato. Perhaps the clearest explanation of this humanistic ideal can be given by citing examples from history.

During the best period in Athens and, notably, in the ideas of Socrates as developed by his two greatest disciples, Plato and Aristotle, the Humanist finds the clear illustration of the philosophy of the well-balanced life; one which, if cultivated, leads to true happiness and nobility of character. He who follows it will find dignity and not shame in this bodily life; he will strive to fit himself in his natural environment and to use all its resources. But he will not value such success at the expense of those spiritual and eternal ideas which should be his highest aspiration.

While I believe the Christian religion is the purest and fullest expression of the spiritual life and adds an element to Greek philosophy which the Greeks could never have discovered or developed by themselves; yet its predominant emphasis on other-worldliness is too apt to distort our sense of values. Admirable as were the ideals of the Middle Ages in the search for the Kingdom of God, the doctrine, that the necessary and pleasant functions of life are, in themselves, evil, and that the search to elucidate the mysteries of nature is not only a waste of time but even destructive to the soul, introduced an unhealthy disturbance in life. The degradation of human character which accompanied the belief that life even in its finest activities is essentially evil led inevitably to the dogmatism of religious creeds and a domination by priest-craft that in the end smothered true spirituality; it brought about corruption in the Church, the substitution of superstition for reason, and the expansion of religion into fields where it had no rightful jurisdiction.

However the Renaissance may have been confused by many cross-currents, its central effort was to restore the balance of life by returning to the classic mean of nothing too much. Nor was it an attempt to copy slavishly a past and gone Greek culture, but rather to use it and adapt it to serve the new conditions of the age. We cannot hold that the genius of the Renaissance excelled the Greeks in literature or art, but there did occur a great advance in both religion and in science, and there was a sincere endeavour to assign a

proper value to each. In this essay it is my purpose to discuss the place of science and the scientific method in the philosophy of Humanism.

It was inevitable that the New Science of the Renaissance should begin with the subjects of astronomy and mechanics. During the Middle Ages the attention of scholars had been concentrated on the abstract problems of the soul and the immortal life after death; only a minor value was then attached to the sciences which concern themselves with the problems of our transitory and earthly life. If one immersed himself in the acquisition of material knowledge he was convinced that he was only too apt to lose his soul and to call to his aid the black magic of the devil who was busily engaged in laying traps for the unwary. Mathematics as an exercise in abstract logic offered the least danger and could be cultivated as a branch of metaphysical philosophy. In addition to its aid in business affairs, mathematics was necessary in determining the positions and motions of the planets. During the whole period of the Middle Ages, astronomy, or astrology as it was called, was the only science whose fruits were regarded as of fundamental importance. The belief in the influence of the stars on human affairs and that a knowledge of the future could be obtained from the positions of the planets goes back to the dawn of civilisation. Pythagoras had incorporated this doctrine in his mystical philosophy of numbers and harmonies, and from the teaching of his school there had been elaborated a complicated mathematical science of astrology. It is scarcely an exaggeration to say that the revelations to be derived from the secular books of the astrologers vied in authority with those from the sacred books of the Hebrew prophets. Thus the background for the New Science was in astronomy and mathematics.

It is significant that the New Science dates from the publication, in 1543, by Copernicus of his heliocentric planetary system. And it is even more significant that he believed he had been directed to his new idea by the teaching of Philolaus the Pythagorean. So, also, Kepler, Galileo, Bullialdus, Newton and others, stated explicitly that their purpose was to make a break with Mediævalism by substituting the scientific method of Pythagoras and Plato for that of Aristotle. Surprise is often expressed that the substitution of the sun for the earth as the centre of the solar system should have caused such a profound effect. The answer is, that the change from astrology to astronomy broke the con-

nection in men's minds between the material and spiritual worlds. From that time, man began to trust to his powers of observation and reason instead of depending on an inner knowledge by Divine revelation. The facts of our life and environment were no longer believed to be in the possession of the priest but to be disclosed by the patient investigation of the scientist. If the earth were merely one of the planets revolving about the sun, and if the planets, in their glory, were mere masses of inert matter and without influence on human character, all other natural phenomena certainly had no spiritual significance. The power of religion began to wane, men's minds and ambitions were turned more and more from interest in a future life and concentrated on acquiring power over their present environment.

The revolution begun by Copernicus was developed by a succession of brilliant mechanicians and astronomers, and was completed by the appearance of Newton's *Principia* a century and a half later. The essential idea running through this work was that all physical phenomena are due to variations in the motions of material masses which are mutually attracted towards each other by a universal force of gravitation. This universal machine was created by God who had instituted rigorous laws for its future behaviour.

These founders of the mechanistic philosophy gave an exact meaning to the scientific method, and I should like to emphasise it. The scientific method meant to them the observation of phenomena which required location in space and variation of spatial relations in time; that is, the positions and motions of bodies. From the classification of such phenomena, they formulated laws which would predict future events; but no such law was considered valid unless it could be expressed quantitatively in numerical ratios. Since it was found to be impossible to connect the functions of thought, or of the will, or of life, with qualities of space or to measure them in mathematical terms, the phenomena of life and consciousness were excluded from the physical world and the scientific method. Thus a man at rest should, according to natural law, continue at rest until he were acted upon by some external force such as the impact of another moving body. If the man began to move by his volition, this causal act was not due to chemical energy although the resulting motion obeyed physical law. While man could not by thought or will disobey or alter the physical laws, yet his consciousness and life were in a world apart. This doctrine was humanistic in its ultimate distinction between conscious-

ness and natural law. However useful science might be in aiding our life and in acquiring power over our environment, it was clearly perceived that our highest duty is to cultivate character and judgment which can be achieved only from human experience. They rightly found no moral lessons in running brooks, in flowers, or in stones. Such could be learned only by searching their own consciences and from the history of human conduct. Science was a valuable aid to religion as it freed the mind from natural superstition, and it enlightened the ignorance on which the sacerdotal power had fed.

No period in history has shown a more rapid advance in scientific achievement than occurred in the seventeenth and eighteenth centuries. The victories of science are so much easier to grasp than are the inner conquests of righteousness that the domination of natural law steadily grew at the expense of the inner consciousness of the spirit. Man came to be regarded as a mere spectator of a purely mechanical world, and the Creator, Himself, shrank to a sort of superman, impotent to control or alter the actions of the Juggernaut He had called into being.

While the Renaissance had temporarily restored the balance between the cultivation of our material and spiritual natures, and had properly restricted the scientific method to the solution of material problems involving measurable space and time, the separation had been too complete and absolute. With the greater knowledge which followed from the systematic study of plant and animal life, it became evident that the self-conscious mind, or soul as it was still called, was intimately affected by the functions of life and by the chemico-physical actions of the body; and also that life and matter could be interpreted objectively only in accordance with the laws of our mental processes.

This complete separation of man, as a unique and self-conscious being, from his environment, led to an impossible situation; and it was the great effort of the nineteenth century to enmesh him as an integral part of the physical universe by the hypothesis of a universal evolution. The final step in this grandiose synthesis was taken by Spencer, who as an engineer forsook the construction of concrete buildings to erect an extraordinary edifice of the imagination. What we call the gay 'nineties exhibited its fancies in no better form than in this game of making worlds. Spencer and his disciples, starting from a uniform primordial chaos, borrowed from Laplace's cosmogony, first segregated the

uniform matter in the stellar systems and followed this process till they finally got the earth detached in a hot and molten mass. The rest of cosmic history seemed to them comparatively easy. In their mind's eye, they watched the earth cool, and by a marvellous concatenation of physical and chemical actions fit itself to create life. Finally, some-when and somewhere, some millions of years ago, in the slime of the sea-coast, a peculiarly complex aggregation of chemical atoms formed which had the essential properties of life—a protoplasmic body which, though subject only to the laws of mechanical motion, yet gradually assumed the power of evolving into definite species of living forms. All evidence of this existed only in the mind of the philosopher, since no fossil remains can be found in the rocks of this early period. The first fossils to be found in the lowest stratum of rock give no support to an evolution from matter to life, since they even then possessed all the essential organs found to-day in the most complex living species—locomotive, digestive, procreative, and selective. Thus the whole evolutionary hypothesis in its vast early stages from chemical aggregations of matter to animal and plant forms far advanced in complexity is, and must remain, without any direct evidence of fact. If one can shut one's eyes and blindly jump over those unrecorded ages, measured in units of millions of years instead of centuries, the theory of evolution can be subjected to the test of palæontological record. While there is proof of great variation within a species, there is no sufficient proof from fossils of variation from one species to another, since the gaps in the record are admittedly too great. Nor can we speak of a law of evolution until we can predict from the changes of past species what will be their future forms. Also no natural cause of variation of species has been found. The old jejune phrases of survival of the fit, natural selection, homogeneity to heterogeneity, etc., have been abandoned. Whatever they may mean, they certainly are not mechanical or chemical causes.

To prove I am not exaggerating when I say that at the close of the nineteenth century it was confidently believed there was but one universal and mechanical law which bound the whole universe into a continuous evolution from aggregates of chemical atoms to man, one has merely to read Huxley, the accepted spokesman of the evolutionists. He wrote an elaborate essay to prove that there was but one scientific method, and that it was exemplified by the physical theory of mechanics; to be scientific, biology, psychology,

and all other branches of knowledge which had any claim to truth, must be purely mechanistic. His modern successors who insist that to seek the truth by *any* method is to be scientific should pause to consider that those who instituted this movement limited the scientific method to the experimental and mathematical method of the physicist. Believing as they did that all phenomena are mechanical, they were correct in holding that all truth is scientific. And they thought that in a short time thought would be measured with the yard-stick and goodness would be tabulated in columns of numbers.

Such a doctrine demolished with one blow all the experience of the past and all the teaching of the ages. To know the truth of human conduct we are bidden to turn from the precepts of Buddha, Jesus, Socrates, who from the fullness of their experience taught personal responsibility for our deeds and freewill to choose between good and evil, and to rely on the biologist who claims to discover the laws of life by the microscope and on the chemist who is expected to combine and dissociate thought in his test-tubes. I wonder whether it is worse for the intelligentsia to rail at the dogmatism of religion when they see some faithful, but ignorant, person praying for help from an idol than for us to submit to the dogmatism of science which held, and still teaches, that our thought and our emotions are but the motions of atoms and the operations of Nature. Let us keep our balance and merely ask in what space and time units are life and the conscious mind to be measured.

We constantly hear that *now* there is no war between science and religion, and there is a university school of religion which sends out millions of pamphlets in which a physicist or a biologist says there is no such war because he can work six days in the week as a mechanist, then close that compartment of his brain and go to the Baptist church on Sunday. We are much impressed by the statements on religion by eminent scientists, but we carelessly neglect to inquire whether their opinions on philosophy or religion are based on either education or thought in those subjects. Too many scientists think that science requires sober thinking, but that religion should be a mere effervescence of the emotions. There is no war between true science and real religion because their aims and methods are, or should be, different; but there is, or should be, a bitter war between pseudo-science, which claims everything, and religion. The reason why there is not strife to-day is because pseudo-

science has swallowed up religion. If the clergy, who subscribe to the dogma of mechanistic evolution either from conviction or to be in the fashion, once realised their folly, they would see that they are digging their own graves; if it be true, neither they nor their congregations can do one tittle different from what they do, since all follow inexorable law; science can admit no free will or power to control or alter the sequence of our thoughts or actions. Our life must be like a stream of water, propelled in a course prescribed by the slope of its bed.

There is no doubt, as I have said, that by the end of the nineteenth century it was confidently believed that the whole organic world of life and consciousness can be interpreted as a physico-chemical system in the sense of Newton's mechanical interpretation of the inorganic world. We were told that there was nothing left to do but to close the gaps by future scientific experimentation. Now everyone will admit that a scientific hypothesis must depend on the facts of observation, and the hypothesis of mechanistic evolution is no exception to the rule, however emphatically its champions may assert that without it a biologist would be unable to work. Nature is neither a respecter of persons nor solicitous about problems of unemployment. She has not been tender towards the cherished hypotheses of scientists and has consistently smashed them. But, to my knowledge, the scientists have not gone out of business, but have merely changed their opinions without advertising the fact. The truth is, that instead of closing the gaps in the mechanistic hypothesis, the accumulation of facts during this century has steadily widened them, and the hope of finding any continuous evolution as a general principle binding together physics, biology, and psychology is being abandoned; only the shallower minds still cling to it. This I shall prove from the evidence of scientists.

In the first place, chemists and physicists now admit that the phenomena of the inorganic or material world cannot be included in a mechanical hypothesis. This is vouched for by the commonly expressed statement that Newtonian mechanics must be modified. I have for many years past pointed out that Newton, himself, made no such claim, and, in fact, believed just the contrary. The recent work of the relativists, Einstein, Whitehead, Eddington, Jeans and others, is an attack on Newton's interpreters and not on him. They are, in fact, denying that light, heat, and other physical phenomena can be explained as secondary qualities of matter,

in terms of the mere positions and motions of material bodies; and they are asserting that as our contact with the objective world is through our sense perceptions its interpretation must be in accordance with our mental processes. Thus, the physicist has created an artificial world whose laws are expressible in the language of mathematics. But this was the basis also of Newton's philosophy. If it be a correct interpretation of physics, and I believe it is, to say that a mechanistic hypothesis is not adequate to explain the properties of dead matter, how can it be extended to explain life, or the mechanistic method be applied to the solution of the problems of life? I could cite many opinions of physicists in support of this view. I should, however, admit that I have been severely taken to task by such eminent critics as Mr Walter Lippmann, Mr Max Eastman and others, who have come to very definite views about physics and science in general. They seem to me to be blessed with a marvellous intuitive knowledge of science and of the rather abstruse ideas of Einstein without the need of the drudgery of years spent in the laboratory or in mastering mathematics.

If we turn to the biologists we shall find that their recent work is widening, instead of closing, the gaps between life and matter, and between life and self-consciousness. Instead of proposing a specifically mechanical, or even any definite, cause of variation, they have nothing left but the vague belief that a potentiality of variation is present in each species and that from time to time in an unaccountable way this potentiality becomes an actuality. This recrudescence of Aristotelian scholasticism is disguised by new labels, but it would be difficult to give any other meaning to the *mutation theory* or to *emergent evolution*. It very likely is true that we know nothing about the cause of variations, but it must be a shock to the mechanist, the behaviourist, and the naturist. I shall quote only a few statements as evidence of the confusion which prevails in regard to the theory of evolution.[1]

On the link between matter and life:

T. H. Huxley: "The present state of knowledge furnishes us with no link between the living and the not living."

Dr Chamberlin: "The actual beginning of life remains an unsolved problem."

[1] The reader who desires a comprehensive collection of the conflicting opinions of biologists should read *The Theory of Evolution* by Mr Natan Moore. He has collected the evidence for evolution as a lawyer preparing a case for court.

Dr Vernon Kellogg: "It is only life that produces life. . . . The thoroughly logical evolutionist . . . *simply says* . . . living matter . . . came from non-living matter."

Dr David S. Jordan: "All life, so far as we know, starts from life."

Dr Raymond Lull: "When, where, and how life began, however, we do not know."

So much for the identity of life and matter; I need not point out that it is what we know, and not what biologists say, which should guide our opinions.

It is clear from these quotations that present-day biologists state unqualifiedly that life can be produced only by life; and that we have no knowledge how life began; this certainly means that the cause of life by chemical and physical action has no foundation of fact. Until we have knowledge to the contrary there exists a complete break between life and non-life, and the mechanistic theory is untenable.

Next; a few quotations on the link between animals and man:

Dr Lull: "That man and the great apes are cousinly descendants from a common stock all scientists *believe*."

Dr Arthur Woodward: "Fossil apes . . . must *be regarded* as the ancestors of both the modern apes and man."

Dr G. Elliott Smith: Denies this and claims that both apes and men descended not from a fossil ape but from the tree-shrew.

Sir Arthur Keith: Will admit only that we descend from an ape-like ancestor.

It is evident, from these statements, that our descent from apes through such links as Neanderthal, Piltdown, etc., has broken down. No more is now claimed than that men and apes had a common ancestor in an unknown mammal. In fact, such creatures as Neanderthal are now supposed to be extinct offshoots from a mammalian stock, and not our ancestors. It is also evident that the hypothesis of evolution is not derived from direct facts discovered about our bestial ancestry; but evolution is first assumed as true, and therefore we must have evolved from an animal because we have an animal-like body. Such reasoning is a reversal of the scientific method which requires that an hypothesis must be deduced from, and be supported by, observed facts.

The real weakness of the biologist's argument, however, lies in the fact that he is defining *man* only in terms of his animal form and functions. I am quite ready to admit that

my body is like an animal's and performs the same duties, thus there may well have been a common bodily ancestry. But I deny that my bodily form and functions define me, as a *man*. That which distinguishes man is his consciousness—his thought, knowledge of future, judgment, religion, etc., and evolution must show that consciousness can develop, and has developed from the principle of life; that it can be exhibited in the oyster, the microbe, and the tree; all of which show life fully developed.

Let us see what biologists say about the origin of self-conscious man; the references are fewer because biology pays little attention to the mind:

Thomas Huxley: "Natural evolution ceased when man became self-conscious"—I hold that to be the initial state of man.

Dr MacCurdy: "The human prototype passes the line into the man's estate when he becomes man both *physically and mentally*."

Julian Huxley: "Lower animals are automatic and *non-conscious;* whereas those operating on the human level . . . are in part conscious, and include ideals of truth, beauty, and morality." What animals operate on the human level, except man? And can the non-conscious evolve into the conscious?

Professor Lull: "On the origin of the human soul *science is silent.* Was it also the result of evolution? It may have been; or a divine awakening of an already evolved body." . . . In my former quotation from Professor Lull, he states that all scientists believe men and apes are descended from a common ancestry.

Further quotation would merely increase the confusion which the lack of clear thinking and clear expression of the biologists has caused. The well-educated public, the sociologists, and the clergy do not understand that biologists are not interested in man as a self-conscious being, but only as an animal. Biologists naturally do not wish to make their study more difficult by including such questions in their evolutionary hypothesis or to be burdened by the task of supporting psychology, just as the physicist is unwilling to include life in mechanical laws. We have the humorous situation of the psychologist leaning heavily on the unwilling biologist, and the biologist leaning on the protesting physicist; and the unsuspecting public unaware of their unexpressed discontent. I say leaning, but the support is only imaginary, there is no known contact between the three individuals.

As I have before remarked, at the end of the nineteenth century it was confidently believed that matter, life and consciousness, are all manifestations of chemical substance and physical energy. What has been the subsequent history of science? Has that belief been confirmed by later experimentation? I shall next quote from Professor Haldane. While other biologists may differ from him, they must respect his opinions; and he has the added quality of being, what is somewhat rare amongst scientists, thoroughly educated and interested in philosophy. The following quotations from his recent Gifford Lectures published under the title *Sciences and Philosophy* will be sufficient to convey his ideas:

> "The most striking differential feature of living organisms is what may be called their active and specific stability, . . . of inorganic bodies a passive stability." . . . "Another fundamental difference is the capacity of a living organism to reproduce itself in every detail, the reproduction starting in part of itself." . . . "In the phenomena of life we are in the presence of what cannot be interpreted physically, but implies a fundamental conception different from those of physical science." . . . "In spite of the instability of their protoplasm, the various parts of the organism are constantly engaged in preserving a constant stability in spite of wide variation of their environment. And this stability of structure and behaviour is preserved from generation to generation. Of this reproduction the mechanistic theory can give no account whatever. No structural machinery can reproduce itself indefinitely." . . . "There may be still some physiologists who believe that progress of physiology is bringing us nearer to a physico-chemical conception of life. But if there are, I can only say that their intellectual vision seems to me to be very defective."

Professor Haldane then cites a wealth of evidence to prove that life is not a form of chemico-physical energy. One would think that, having proved to his satisfaction that life is life and not matter, he would conclude that we must accept as a fact that there is a vital activity of life as there is a mechanical activity of matter.

One would think so from the following statement [p. 69]:

> "What still remains mysterious is the specific co-ordination of activity, and corresponding organisation of structure. These are characteristic of all life, however lowly an organism may be. The idea that in lowly

organisms or 'simple' protoplasm we are getting beyond these characteristics has been a veritable *ignis fatuus* to biologists."

This would seem to be a direct statement that between the simplest life and the most complex matter there is an impassable difference in kind. But observe how even so philosophic a biologist as Professor Haldane cannot rid himself of the idea that he must be a mechanist. He makes an extraordinary *volte-face* [p. 70]:

> "Now if we admit that processes in which matter and energy are concerned are by themselves purely mechanical in their ultimate nature, it must lead to great scientific confusion if an invisible and intangible something [*i.e.* life] which interferes with these mechanical processes is *assumed* to exist [he had immediately before proved that it existed] within the bodies of organisms. With such an assumption we never know 'where we are.' The assumption will 'explain' anything and everything which occurs in a living organism; [what more could we ask for] but in practice it cannot be definitely tested in the investigation of individual phenomena, and is practicably useless in detail as a working hypothesis."

Could there be a better illustration of the fallacy that knowledge can be obtained *only* by the scientific method of investigating material phenomena? Professor Haldane first says that life and matter are in fact different entities, but, if there is *assumed* to exist an "invisible and intangible something" [that is *life*], the biologist will be thrown out of his reckoning and his hypothesis will become useless. Is the universe a sort of game created by the scientist in order that he may exercise his ingenuity, and excite admiration by the activity of his brain? Should he not contemplate it more humbly and admit that he can only study facts as they present themselves to him? The Mediæval Theologians created a world according to what they called an inner knowledge by Divine revelation, and the facts of nature were twisted to conform to this inner knowledge. And they also cried out that unless we accepted their inner knowledge as an infallible guide we should not know where we are. And to-day the Modern Scientists have created a new world according to their inner knowledge by Hypothesis and again the facts of nature must be twisted in conformity to the infallibility of their inner knowledge.

The acceptance of a principle of vitalism, which is a most appropriate name to express the fact that there is an invisible and intangible activity added to matter which is essential in life, does not explain everything and anything; it merely admits that we *cannot* explain life by what is non-life nor consciousness by unconsciousness. By long usage the word science had come to mean the study of material, and non-living, phenomena, and the scientific method to be the formulation in mathematical language of laws which give the temporal and spatial relations of visible and tangible bodies. And since it is becoming more and more certain that there are phenomena of both life and consciousness which are *not* subject to the temporal and spatial relations of material bodies and not expressible in mathematics, I hold that Humanism and the humanistic of subjective experience are necessary in order to make clear a fundamental difference of fact.

For thus limiting the uses of the scientific method I am generally called an obscurantist, and especially by those whose lives show no discipline in either physics or biology. They complacently assume that men are merely curious mechanisms, but at the same time they protest against admission of any rigorous laws of life or of morality because any restraint or inhibitions would fetter the spontaneous outpourings of their creative genius. One litterateur has dubbed me a King Canute, vainly trying to force back the onflowing sea of scientific knowledge by holding up a protesting hand. I accept the term. Canute was a Norseman, and was thoroughly acquainted with the sea and its tides. He was familiar enough with the ocean to know that the oncoming tide was but a little and temporary disturbance in the vast waters unaffected by extraneous causes; and he knew that if he held up his hand at the proper time, the tide would seem at least to obey him. Believing as I do that there is a vast body of true scientific phenomena and laws which have not been explored, I trust I may be a prudent and wise Canute in teaching that the present Noachian flood is but a temporary tide of pseudo-science produced by extraneous causes. When this temporary mechanistic fever has subsided, let us hope we shall again realise that our character and our spirit can be studied only from human experience. That is what the Humanist believes will lead to the well-balanced and full life.

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THE INTIMIDATIONS OF THE SCIENTIFIC METHOD.

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THE Golden Age of science in this country was the seventies of last century. The publication of the *Origin of Species* with its doctrine of development had marked a distinct watershed in thought between all previous ages and those that succeeded. It was so among scientific men themselves, and long and fierce were the controversies that went on between the old men of science like Richard Owen and the new men of science like Huxley. It is not only theologians who quarrel and fight.

The new men won the day and in the seventies the country went science mad. To the dust-laden victors of that combat two points seemed to be established. First, that everything was explicable in material terms, and secondly that there was now discovered an alternative world view, a rival *Weltanschauung*, to that of Christianity. It is very comforting to live in a house all the doors of which will close, both the outer door and those between the rooms, and this was the kind of house that men like W. K. Clifford lived in. There might be something outside, they did not know, and in any case it might only be the night in which all cows are black. Inside, however, there was plenty of light.

Why was the conclusion so easy that materialistic science was an alternative to Christianity? We shall find the reason in the nature of contemporary Christian apologetic. It too was an exact science, and its professors also lived in a house with closed doors. The scientists lived in separate rooms in their house—labelled chemistry, biology, physics and geology, and after the manner of flat dwellers they quarrelled violently with their neighbours, and only united to congratulate themselves that they were not as other men

are, dwellers in the dark, even as these Christians. The Christians too lived in separate rooms—Catholic, Episcopalian, Presbyterian, Methodist and Congregationalist—and they too quarrelled with their neighbours except when they were congratulating each other on the delightful prospect of the hell that awaited the people outside, even these scientists.

There was no intimidation of science in those days. The Christians accepted the challenge of the scientists and recognised no truce, no possibility of truce, with them. The Christians no less than the scientists felt that everything was completely explicable in material terms. The scientist had a map of the world that now is, and the Christian had a map of the world that is to come. Each denied the possibility of the existence of the map which the other claimed to possess, and they each spent a lot of effort in denouncing the other side's denials. The scientists' map did not seem to account for the scientists' crusading ardour, any more than the Christians' map taught the Christian the bearing of the virtue of Christian charity. Those were great, glorious, imperial days, full of the zest of battle.

Well, peace be to their ashes. Both sides won victories for us of to-day. Freedom of speech, the historical method, the Bible in the schools, the emancipation of women, were all products of those controversies. We are debtors to the Greeks and to the barbarians, although it would be foolish to attempt to say who were the Greeks and who were the barbarians of those Homeric contests.

Times have changed, and we with the times. Each side perhaps had suffered from that little learning which is dangerous, and by this time both have drunk more largely of the Pierian spring and have lost their intoxication. It seems to me that there are at any rate two reasons in each case which have acted as sobering influences. First of all, a great deal of work has been done on what we may call frontier subjects, and secondly, the subject-matter itself has been re-examined and has been seen to be not so fixed and finite as was at first supposed. This last produced an agnosticism turned in upon itself in contrast to that of the older generation which was concerned only with other people.

The study of frontier subjects in science has resulted in a new orientation of science itself. Chemistry, mathematics, physics and biology are seen to be not separable compartments of knowledge, but considerations of the sum-total of reality from a particular angle. They are aspects of the whole rather than areas of the whole. Between physics and

chemistry, for instance, there sprang up a new study—physical chemistry—which in turn became further expanded until it became impossible to tell where physics ended and chemistry began. The same thing happened between chemistry and biology and between physics and mathematics. Mathematics itself became the *organon* of all the sciences, which thereby became quantitative rather than qualitative. Geology came to be almost swamped by a new rival in geography, while both suffered a certain subordination to anthropology, which again was linked on one side to biology. This unification of the field of knowledge has gone hand in hand with a more intensive specialisation, and those who would take a wide sweep have been more and more dependent on those who burrow in a more and more restricted area, so that they are less able (although not perhaps less willing) to dogmatise on the general bearing of their subject.

Nevertheless, the attempt has been made, indeed it is a necessity of the human mind that it *should* be made, in this generation as in previous ones, to find a formula of universal validity for the whole scheme of knowledge. The old view that matter is the ultimate reality is now exploded, and the comfortable assurance of the mid-Victorian scientist has gone with it. This so-called "ultimate reality" has itself been seen to be analysable, and if the things that we can see and handle are not the fundamental things the fundamental things can only be something that cannot be seen or handled, and matter itself is an illusion.

> The great globe itself,
> Yea, all which it inherit, shall dissolve
> And, like this insubstantial pageant faded,
> Leave not a rack behind.

The popular exposition of the modern view is, of course, that of Sir James Jeans. It is probable, he says,

> "to borrow Locke's phrase, that 'the real essence of substances' is for ever unknowable. We can only progress by discussing the laws which govern the changes of substances and so produce the phenomena of the external world." (*The Mysterious Universe*, p. 131.)

After pointing out that the universe does not appear to work as was at one time thought, on animalistic or anthropomorphic lines, nor, as was recently thought, on mechanical lines; it rather works on purely mathematical lines; he continues:

> "To-day there is a wide measure of agreement, which on the physical side of science approaches almost to unanimity, that the stream of knowledge is heading towards a non-mechanical reality; the universe begins to look more like a great thought than like a great machine. Mind no longer appears as an accidental intruder into the realm of matter; we are beginning to suspect that we ought rather to hail it as the creator and governor of the realm of matter." (*Ibid.*, p. 148.)

A writer in *The Times*, commenting on this, recalled the remark of Robert Boyle that "mathematics is the alphabet in which God wrote the world."

All this, of course, is very comforting to the theological student. Apparently he has just had to sit still in order to wait until the scientists have come round to his conclusions. But were these his conclusions? If we look at the history of theology in the last sixty years we shall see that the same transformation has been taking place within Christian theology as has taken place within natural science.

First of all, there has been a development of frontier subjects—and that in two ways. The frontiers between denominations have been investigated and the

> unplumbed, salt, estranging sea

between them has been gradually drying up. They have been seen to be one continent. A minor, and not altogether happy, result of this has been the movement towards Christian Re-union, if we consider it simply as an affair of internal economics. A far greater consequence has been the investigation of the frontiers of this continent itself. The historical method applied to the Bible and the creeds, the canons of the comparative study of religion applied to the subject-matter of faith, the corrosive application of psychological principles to religious experience, and the extension of Christian values into the economic world and the consequent humanising of those values themselves, have all shaken us out of the assurance of our forefathers. There is in theology as in science a self-regarding agnosticism, and we have become like the caricature of the theologian in Ronald Knox's poem:

> Whose suave politeness, tempering bigot zeal,
> Would alter "I believe" to "one does feel."

In the second place, like the scientist, we have come to seek a new basis for ultimate theological reality. That solid and obvious material object, the Church, was once our

authority in these things. Succeeding this, and alternative to it, we had the perhaps still more obvious material object, the Bible. Both have proved unsatisfactory as the substance of "ultimate reality." As Dean Inge has pointed out, the Copernican cosmology has never yet been reconciled with the Christian faith. Luther, equally with his Roman Catholic opponents, postulated the Ptolemaic theory, which indeed is essential if we accept a verbally inspired Book of Genesis as the only true account of the origin of the world. We have, however, turned our backs on these things, although we have been willing to allow a group of brilliant amateurs like H. G. Wells and Middleton Murry to force the pace for us, as no amateur has been allowed to force the pace of the scientists. Germany has witnessed two re-statements of old positions—the rationalised mysticism of Otto and the neo-Calvinism of Karl Barth—re-statements to be understood rather by what they deny than by what they affirm, but no such re-statements are really satisfactory. "Authority" is to the theologian what "matter" has been to the scientist, and it is the nature of authority itself that is in question. There seems to be no place where authority is integral save in the realm of pure spirit, the thought of God operating within the soul of man and conforming it to His likeness.

Now, if the position of the modern scientist and that of the modern theologian have anything in common it would seem to be this, that in form rather than in content is to be found the ultimate reality. The subject-matter of science and the subject-matter of theology are different and distinct—one is the world of phenomena, the other is the accumulated records of the soul's quest after the epiphenomenal reality—but the form is of the same nature in both. It is mind, to quote again from Sir James Jeans—"not of course our individual minds, but the mind in which the atoms out of which our individual minds have grown, exist as thoughts." This does not rule out content as of no importance—it is of the utmost importance, and to speak as Professor Julian Huxley does, of "Religion without Revelation," is as if a scientist were to speak of a science of physics without the tangible objects which are the permanent starting-point of study. But the thing which makes religion what it is, and the thing which makes science what it is, is the form rather than the content.

What then is this "form"?

It is noticeable in these days that mathematics, the *organon* of physics, has come to be the *organon* of all the sciences. In other words, as I have already said, science

nowadays is quantitative and not qualitative. Here, however, we come to what is to my mind an important distinction. Mathematics has two aspects. When I speak of it as the *organon* of all the sciences I mean that measurement is commonly the method by which in these days a study becomes a science. Science may, if we like, be simply "organised knowledge," but it is held to be knowledge organised in this particular way. It is, of course, supremely so in the physical sciences. But in these sciences mathematics has also a second aspect. It is not only the method of approach, it is also, as we have seen, the *form* of the science itself, and so brings us to the ultimate reality which the science reveals.

It is very interesting that it is those sciences which deal particularly with exact measurement and wherein exact measurement is possible, that ultimately issue in a view of the world as the creation of mind, while it is those other sciences, the biological sciences, whose subject-matter is least capable of mathematical analysis, which still give us a considerable weight of opinion in favour of the mechanical theory. This is, indeed, a paradox, but it is, I think, a paradox which arises from a confusion between a method and a form. Mathematical measurement is the method which all sciences have borrowed from physics, and so far so good. But it is a fallacy to suppose that mathematical measurement necessarily stands in the same relation to all sciences as it does to the physical sciences. In the latter it is form as well as a method. That is to say, it is not only a way of treating things, but also supplies the meaning of the things that are so treated. It is meaning as well as manipulation, an end as well as a tool. Outside the physical sciences, however, this is not so. There mathematics is simply a convenience, a help in arranging our material, in so far as it is subject to arrangement. And whereas in the physical sciences mathematics is the clue to what is most typical of these sciences, in the biological sciences it is simply a means of dealing with those measurable phenomena which are the least typical. Any attempt to exalt the mathematical method in the biological sciences to the place it holds in physics is a confusion between method and form and results in what I have ventured to call "intimidation."

Many good examples of such attempted intimidation are to be found in the study of psychology. I will deal with this first because it is one of the frontier subjects between religion and science. Here the subject of study is the

behaviour of the human mind itself, so far as we can notice it by introspection and by external evidence. We will all agree that psychology is a science in that it has by this time collected sufficient evidence to be arranged in a system. But no science is independent of its principle of classification, for that is its form. There are exact sciences so called, but other studies may none the less be sciences even though their form may not be "exact." Psychology, as the study of the human mind, seems to me to be one of these. Nevertheless, at least three attempts have been made to make it an exact science. These are "behaviourism," which is a grafting of psychology on physiology, "experimental educational psychology," which is a grafting of psychology on logic, and certain aspects of the so-called "new psychology," which are less crude than behaviourism but not less dogmatic.

We may ask ourselves the question, why it is that when the physical scientists are agreed that the mechanistic theory is exploded, there should still be any reputable person who believes that reflex action will explain all the processes of the human mind, including, presumably, the explanation of itself? The reason seems two-fold. In the first place, while exact analysis is a normal method in physics, it is an alien method when applied to living things. It is a *tour de force* to bring it in, and in consequence its professors protest too much. The physicist need spend no time vindicating his own method: the behaviourist spends most of his time vindicating his, with the consequence that there is a great deal of pother and no result. In the second place, the behaviourist is himself one with the data he is studying. He is not like the physicist dealing with something quite outside himself. He is dealing with himself as well as with other people. Consequently his own knowledge of himself, what he does and what he desires, complicates his views of other people, and his theories are apt to be projections of his own feelings. The personal character of Sir Arthur Eddington is not relevant to his theories of physics. The personal character of a behaviourist is, on the other hand, very relevant in his consideration of psychology. And so to rule out these subjective factors and to declare that the only relevant factors are those that are measurable is really to confess oneself as "unscientific" in this particular science. At the same time, one does not wish to deny that useful work in psychology has been done by the behaviourists, sometimes in spite of their theories.

The same kind of exactitude, although not mathematically measurable, is claimed by the less responsible exponents of the "new psychology." A professor of this science once declared that the gracious humility of a well-known Scottish divine was due to the fact that he was an illegitimate child! Notice the pseudo-scientific form of that statement. Here are two facts which are true quite arbitrarily strung together and raised to the status of cause and effect in the endeavour to provide a scientific explanation for one of them. There is no intimidation so terrible as that which is here illustrated. Our complexes have been tabulated and our very dreams explained. Enthusiasm is due to a repressed instinct seeking some other than a normal outlet, self-denial is sadhism, Newman went over to the Church of Rome because he had a mother-fixation, Gandhi's hold on India is due to nothing more than a power-complex. It is all so clear, so definite and exact, and many people are worried by it. Psycho-analysis in the hands of responsible people has been a great means of good, but with others it becomes almost a form of scientific blackmail. There is no need at all why we should allow it to be so. A friend of mine once accused me of all manner of unpleasant faults, and was willing to prove to me that I had them. But I knew all that better than he did, and I confessed them all straight away, and pointed out that my trouble was not to confess them, but to get rid of them. Unfortunately he had no formula for this.

Education, too, has become an exact science, and has a place in the proceedings of the British Association. The shy delicate relationship of the growing mind to the mature mind and their common exploration of the nature of the world and the heritage of the ages has become with some people a matter of intelligence quotients, sine curves, and formulæ. It is a region in which many men who are not scientists may clothe themselves with the esteem that we give to scientific men. Apparently the worst condemnation we can apply to any work of teaching or any school is that it is "not scientific," and in the craze to be scientific people treat children as so many cases rather than as human beings. It is curious that "educational psychology" is almost always treated as a unilateral subject. It concerns one person learning rather than one learning what another is teaching. The "learning material" is consequently looked upon as the invariable factor in the process, and so it gives a fixed point against which the efforts of the learner can be measured with scientific precision. In this way the scientific method applied

to education is only possible by eliminating from education all the elements which make it really educational.

I have just said that the psycho-analyst has no formula for psycho-synthesis, if we may use such a term. There are others who have. There was an intimidation by science long before there was any science as we know it to-day. The Roman Church had reduced the soul's relationship to God to the level of an exact science, and the arts of casuistry were invented to guide the practitioner, and these rules still hold good. When the General Strike occurred, Cardinal Bourne contributed to the solution of the country's problems by an application of these rules, and pronounced that the Conservative Government was ordained of God and that rebellion against it was a mortal sin. One felt that a formula in algebra had somehow cropped up in the course of a street fight.

But the Roman Church is not the only one that has used such intimidation. The Evangelicals and the Modernists do the same. The science of conversion with its emphasis on "the blood" and "assurance" and "sanctification" and what not, has exercised a very real intimidation over the minds of men. Mere exactness always does intimidate. The human mind is not made in that way, and we are made to feel our limitations and are driven to seek refuge in what appears to be certitude. The Modernist perhaps feels that he alone has got a form of certitude which the scientific man outside the Churches can endorse, and he is apt to be exceedingly annoyed when people still cherish practices which he can quite clearly prove to be "superstitions" and get out of them not only emotional satisfaction, but even a rule of life. Yet human nature is always one too many for the logician.

It is not only in theology and psychology that there is this intimidation of science. It is present in politics also. I have mentioned the General Strike. To Sir John Simon the General Strike was little more than a problem in mathematical jurisprudence. In a short book he proved by the use of formulæ that the General Strike was illegal. This was probably true, but it was no more helpful than Cardinal Bourne's dictum that it was a mortal sin. To say "You can't strike. It's illegal," is as if one were to say to Aunt Emily "You can't go No Trumps. The Portland Club won't let you." It is not surprising to find that the Simon Report on India was an excellent document except for the one important omission—it showed hardly any understanding of Indians.

A rather remarkable example of the irrelevance of exact

science in the conduct of human affairs is to be found in General Smuts's well-known lecture on "Democracy." This is the more surprising because General Smuts is ordinarily a doughty opponent of the mechomistic view of life. Yet he says:

> "I have no doubt that the rapidly growing influence of science in all departments of human activity and of government will yet lead to a far more important place for science in the organisation of the state in future. . . . But apart from the power and results of science, we want to-day the scientific spirit in human affairs. Its method is that of complete impartiality and absolute respect for fact and for truth. . . . Emotions, desires, passions, carry no weight in the balance of science. Illusions do not count with science. Science is cured of the childish belief that what is desired must be true or must exist, hence I have spoken of the maturity of the scientific spirit. It is this spirit which above all is to-day called for in the administration of human affairs."

There is much truth in this, but one may say in comment that it is precisely the ignoring of human emotions, desires and passions which has made the situation in South Africa such a burden for the black man. It is the existence of emotions, desires and passions that makes human affairs human and not the movements of pawns on a chess-board. The elimination of these things will make human affairs more calculable, more easy to manage, but only at the cost of taking from them their essential nature. General Smuts here has clearly lapsed from his own scientific principles, for he would ignore the most characteristic element in the situation with which he deals.

The Christian Church, as I have indicated, perhaps suffers most from the intimidation of science. On the one hand, the orthodox are so much criticised by scientists, and, on the other, the modernists are so much patronised by them, that from both sides the temptation is to yield. The old guard try to make their methods scientific, that is to say, to make them less spasmodic and more organised. The new people feel that they must stand for broadmindedness even at the expense of conviction. Missionary effort is "scientific," and more and more money is spent every year on co-operation with anthropologists and others to "investigate the facts." The social work of the Church tends to be based on a study of modern economic problems rather than to spring out of

her essential Gospel of deliverance. There are "training courses" for everybody, and the "graded Sunday School" is supposed by some to be in itself the last word in religious efficiency.

In so far as the Church is self-critical—and there is no body in the world to-day that is more so—she has the scientific spirit. Sir Arthur Keith may rail against the obscurantism of the Church, but there will probably be found more copies of his books in parsons' studies than copies of Bampton Lectures in the studies of scientists. But self-criticism means criticising oneself by a certain standard. And what is that standard? Is it, in the attempt to be scientific, measurement and analysis—measurement, that is to say, by the external rules of doctrine formulated by Catholic or evangelical, or by the standard of psycho-analysis, or comparative religion or social service, or the historical method? These are useful, but they are not of the essence of her subject-matter and their use as criteria is largely due to intimidation.

Ramsay MacDonald put his finger on the spot in an address at Oxford nearly twenty years ago, when he said, "the function of the Church is to keep alive a spring-time freshness in the world." She can do that only by making Christians and by helping people who are weary of fruitless striving and endless argument to find the goal of their spirits in prayer.

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ARE WE ALIVE?[1]

ERNST JONSON.

I BELIEVE that I am alive, that I am not mere mechanism gone conscious, but that I am creative force. This sense of being alive is one which no argument ever wholly eradicates. In the conduct of life even the theoretically most consistent mechanist takes many a scientific holiday to disport himself in the scientifically abjured realm of life, though when he puts on his professional harness he repudiates these lapses into the easy-going ways of common sense. The sense of truth attached to mechanism is purely theoretical; no one holds mechanism for practically true; no one lives as if it were true.

The question of mechanism or vitalism is not amenable to experimental adjudication. Our senses are affected only by mechanical energy, and there cannot, therefore, be any sensible evidence for or against life. In every network of mechanical causality, no matter how unbroken it may seem, there are meshes which may be open, and where some vital element may have been injected. Mechanism could justify itself only as a probability, and could do this only by presenting a tenable conception of the universe as a whole as a purely mechanical event. This it has hitherto failed to do, and will forever fail to do. In every mechanistic conception of the universe there will be two major gaps, besides a host of minor difficulties, and it is these gaps which justify vitalism.

II.

The most obvious difference between inorganic matter and living tissue is that one grows by the addition of like matter from without, while the other grows by the division

[1] A reply to this article by Sir Oliver Lodge will appear in the next issue of the HIBBERT JOURNAL.—EDITOR.

of its own units. There is something about growth by division of cells that is essentially unmechanical, something that violates one of the basic laws of physics, the second law of thermodynamics.

Common sense has long recognised the fact that a burned house never unburns itself and so gets itself in position to burn a second time. But it was not till the middle of the nineteenth century that this common-sense conviction received full recognition by science. In October, 1852, Sir William Thomson published a paper: "On a Universal Tendency in Nature to the Dissipation of Mechanical Energy." This new law of nature—the Law of Dissipation of Energy—he stated as follows:

> "There is at present in the material world a universal tendency to the dissipation of mechanical energy. Any restoration of mechanical energy, without more than an equivalent of dissipation, is impossible in inanimate material processes, and is probably never effected by means of organised matter, either endowed with vegetable life or subject to the will of an animated creature."

Restoration of mechanical energy is impossible. What does that mean? Place two vessels side by side and on the same level. Connect the vessels by an inverted syphon, that is to say by a U-tube entering the bottom of each vessel. Fill one of the vessels with water. The water does not stay where we put it. A part of it flows through the syphon into the other vessel. The flow ceases when the water-surfaces in the two vessels are on the same level. At that point a state of equilibrium is attained, a state from which no further movement is mechanically possible. The water which has flowed into the second vessel cannot flow back into the first. In other words, mechanical process cannot reverse itself. The water has dissipated its mechanical energy, and a mechanical restoration of this energy is impossible. That is the meaning of the Law of Dissipation of Energy.

The law of dissipation of energy is now called the second law of thermodynamics, or the law of entropy. The approach toward equilibrium which characterises all physical process is a movement from an unstable state towards a stable state. Physical process can move only in one direction. It cannot reverse itself and return to its starting point. Physical process cannot even arrest itself and hold itself at some stage short of equilibrium, but must by necessity proceed towards equilibrium. The unstable state is said to have potential

because it contains the possibility of physical process. Entropy is the lack of such possibility. When entropy has come nothing more can happen.

Potential or instability is the sole motive power in physical process. All such process results from the existing potential, and is attended with an increase of entropy. Dissipation of energy, or loss of potential and increase of entropy, is the essence of physical process. A clock runs because in winding it we have put potential into the weights. When that potential is exhausted the clock stops. The running of the clock consists in the dissipation of the potential in the weights. A motor car runs because the potential escapes from the gasolene. All the work done by the car consists in the dissipation of the potential locked up in the gasolene. When that potential is dissipated the car stops.

However, there occur in nature phenomena in which there is a restoration of potential. The formation of a cloud from the water of the sea is such a phenomenon. But in all such phenomena the restored potential is but a fraction of the potential lost in bringing the restoration about. That is to say, the quantity of energy raised into the available state is only a small part of the solar energy dissipated in the formation of the cloud. The net result of physical process always and necessarily is a loss of potential.

III.

The facts that living tissue grows by division of cells and that living individuals propagate by such division mean that the cell is infinitely divisible. This infinite divisibility is a property which inorganic matter does not possess. If a molecule of carbon dioxide be divided, the parts will not be carbon dioxide: they will be something else, of other species, of the species carbon and oxygen.

The mechanistic interpretation of life presupposes that there exists in the living cell a physico-chemical structure which determines the development and behaviour of the cell, and thereby also the structure and functioning of the organism of which it forms part.

All material unfoldment consists in a falling into actuality of a pre-existent potential situation. In the actualisation the potential is lost, irretrievably lost, and to recover it lies not within the realm of physical possibility. The unfoldment cannot be duplicated or repeated. Another unfoldment is possible only if there be another germ of the requisite

potential. Physical process cannot reverse itself; it cannot generate potential out of the unfolded actuality. The quantity of unfoldment is proportional to the quantity of potential. For every item of unfoldment there must be a corresponding item of physical potential.

Life propagates by division. A cell divides in two parts, and each part becomes a whole cell. This unfoldment pre-supposes, on the mechanistic hypothesis, a duplex formative mechanism in the mother-cell, one expending its potential in restoring the mother-cell to its original condition, the other in the formation and development of the new cell. Every new division pre-supposes an additional formative mechanism in the mother-cell. It is not unreasonable to assume that the average female produces five hundred egg cells, and that each one of these is able to produce, in its turn, five hundred. Assuming that life on this planet has passed through fifty million generations, the number of duplicate formative mechanisms contained in the first living cell must, on the mechanistic hypothesis, have been five hundred raised to the fifty-millionth power, which is a number written with one hundred and thirty-five million figures: that is to say, a number filling a book of some fifty thousand pages. In order to fully realise the absurdity of this inevitable implication of the mechanistic hypothesis, it should be remembered that the number of molecules contained in a pint of water is only eighteen million nine hundred thousand billion billions—a number written with but twenty-six figures. In other words, reproduction by division is, on the mechanistic hypothesis, a theoretic impossibility. And an hypothesis which renders a fact theoretically impossible is an absurd hypothesis. We conclude, therefore, that there is manifested in organic beings a non-physical force which produces physical results that are different from the physical results which would be produced by physical forces alone, and that when rightly considered, the facts of science confirm the intuitive conviction that we are alive. The real ground, however, for the belief that we are alive is not this scientific evidence; it lies in the fact that this belief is wholesome and good to live by, while the contrary of it is unwholesome and not good to live by.

IV.

Another weakness of the mechanistic interpretation of life is its inability to account for the origin and survival of consciousness. In the first place, the origin of consciousness

through mechanical causation, through the action of strain and motion, is beyond our powers of imagination. In the second place, the materialist must hold to the theory of evolution through mechanically caused variations and natural selection. Then, if the causality of the universe were purely mechanical, consciousness could not have possessed any survival value, and hence could not have become established through natural selection. Least of all could spiritual values have survived. In a purely mechanical universe there should be no art, no religion.

V.

The attempt to find a purely mechanical interpretation of life presupposes that the universe as a whole may be so interpreted. It would be foolish, indeed, to try to conceive organic phenomena as purely physical if the universe as a whole cannot be so conceived. If the mechanist would try to think through the proposition that the universe is a purely physical process, he would find himself confronted with an insuperable obstacle—the second law of thermodynamics, the law of entropy. The net result of physical process always and necessarily is a loss of potential, so that, if the potential of the universe were a once-for-all fixed quantity, every physical event would bring the cosmos nearer to a state where no mechanical event any longer would be possible. A purely physical cosmos could remain in operation only through a finite time, and must have had a beginning. Had it existed from eternity it would now have exhausted its potential and would have dissipated itself as radiant energy into infinite space.

This universe of ours still is in operation. It has not yet exhausted its potential. The sun still shines, so do the stars. There is coal and oil to burn. The coal and the oil received their potential from the sun. They had a beginning. But what of the sun? Manifestly it too had a beginning, or, maybe, it has a continuous beginning. The fact that the material cosmos is still going means that potential is generated as fast as it is lost.

The generation of physical potential is not a physical process. Such process results in entropy, not in potential. The fact that the physical cosmos is still going means that a non-physical power operates upon it and that the constructive work of this power equals the destructive work which we call physical process. It would be foolish to deny

the existence of a non-physical power on the ground that no such power has been immediately observed. Our senses are affected only by dissipating energy, and, consequently, the non-physical action of the cosmic power must lie beyond the ken of empirical science. In so far as we understand physical process, in so far as we see clearly that its essence lies in dissipation of energy—in ceaseless loss of potential,—we also see that the concept of physical process needs to be complemented by that of creative process. In so far as the second law of thermodynamics is to us no mere authoritatively certified formula, but has real meaning, we are forced to abandon materialism, and to recognise a non-physical generator of physical process. Entropy is the fact which makes materialism forever untenable.

Our experience of the material cosmos is built up from material furnished by the senses. This experience consists in an intellectual integration of sensations. The sensations arise as a vital reaction to that external event which constitutes the mysterious substratum of physical process. This vital reaction occurs only when energy is dissipated. Stable energy produces no sensation. A stable cosmos would not be a possible object of sensible experience, and hence would not give us the experience of matter. Energy affects our senses only as it falls from an unstable into a stable state. Then, if matter is that which we perceive by the senses, it follows that stable energy is not matter, but that unstable energy alone can rightly be called matter. Energy is matter when it has potential. Hence, potential is the very essence of matter. Without potential there would not be any matter. Actual materiality consists in loss of potential. So-called materiality is a process the essence of which lies in the destruction of the condition which makes the process possible. Every moment of actual materiality involves a loss of its equivalent in potential materiality. Materiality is a transient state of the cosmic energy. It is the state of passage from instability to stability. Materiality should be conceived as that phase of the cosmic energy in which it passes from the creative state into the state of entropy. Matter, therefore, must not be regarded as self-existent and eternal, but as dependent and evanescent. The materiality of the visible universe implies an immaterial matrix by which matter is generated. That is to say, a universe which manifests itself as a material process must, by virtue of that fact, be regarded as an essentially immaterial universe. The concept of mechanical energy cannot be thought by itself

alone, but requires the complementary concept of creative force.

Even the scientific mind is sometimes hazy as to the meaning of the term "creation." For instance, we are told that the creative process is going on now because chemical elements are being formed from electrons. We are told also that the evidence of such "creation" is found in certain cosmic rays. These rays, manifestly, are energy lost by the electrons which combine to form the elemental atoms. That is to say, what really happens is not a creation of new potential, but a deterioration of electrons into elemental atoms: a deterioration resulting from the instability of their energy, and accompanied by the loss of potential seen in the cosmic ray. The term "creation" can be used with propriety only where potential is being generated.

That which is not creative is a quantity, and a quantity of potential can last only a finite time. The universe is eternal, and, therefore, its essential being cannot be a quantity, but must be a creative power. The root-being of the universe cannot be material; materiality means quantity. It must be a creative power; it must be an infinite.

What commonly is known as the physical universe is not the universe at all, but merely the exterior tangible side of the universe. This universe of ours is a living universe. Cosmic life is first, and from this life proceeds the material cosmos. This is the only basis upon which a perpetual universe is conceivable. It is only the mind that has never grasped the significance of the second law of thermodynamics and which leaves entropy out of its reckonings, that can conceive of a perpetual material universe. The enlightened mind must conceive the universe as a self-perpetuating vital centre from which there is precipitated from time to time immense quantities of matter in a highly unstable state of energy, and which, therefore, immediately explode and scatter themselves in the form of stars and nebulæ. As these materialisations of the cosmic life dissipate themselves into infinite space, first by losing their heat, and then by the deterioration of their very substances into radiant energy, they are replaced by new constellations.

VI.

Life manifests itself in a material organism by continually adding to the organism energy appropriated from the environment. A pure mechanism cannot appropriate

energy. You wind your watch and it will run for thirty-two hours and no longer. Its capacity to dissipate energy is limited to the quantity of energy you put into it. An animal, on the other hand, does not have to wait for some exterior power to put energy into it; it appropriates, by the power that is in it, energy from the exterior world. Life is a power which absorbs and assimilates energy from the outer world. Life manipulates physico-chemical process and moulds it into those peculiar patterns which we designate as living organisms. We designate them as living because, though every particle of them is material, yet as a whole they are something other than material.

In doing this, life manifestly diverts the cosmic mechanism from its direct path towards stability and causes it to be entangled in its own labyrinth. The initial direction of a mechanical system can be altered only in one way: by adding energy to it. If life really manifests itself materially, that is to say, if it alters the mechanically necessitated course of inorganic material events, it must be because it adds energy to the inorganic cosmos. Obviously this added increment of energy must be created by life. Life could not take energy from the material cosmos without first adding energy to it. That is to say, the performances of life show it to be a generator of mechanical energy. Life is a power which generates mechanical energy in such a way that when this new energy is imposed upon the existing mechanical energy-system of the environment the resultant is a physical organism which conforms to the specific type in form and in function. Mechanism consists wholly in dissipation of energy. Mechanism cannot generate energy. Life, then, being a power which generates physical energy, cannot be a mechanical power. In other words, the fact that life manifests itself materially proves life to be immaterial. We know life to be a non-physical power because it bodies itself forth in physical process.

Some seek to evade this consequence by declaring that in the vital act life does not add anything to the sum of the universe, but merely alters the direction of the already existing energy. When we undertake to think through this concept of a merely directive influence we find that the established direction of an energy-process can be altered in no other way than by adding to it an increment of wholly new energy. An energy process is bound to follow its causally determined direction unless acted upon. This action upon it can be thought only as an addition to its energy. To alter

the direction of an energy-process, and to add energy to it, are but two ways of saying the same thing. The cosmic process comprises all existing energy. If that process is to be altered, energy must be created. Life, then, means the power to create cosmic energy, psycho-physical energy: energy which may manifest itself in the form of thought, desire, feeling or motion. From the fact that thought is converted into motion it follows that thought and motion are not essentially different kinds of energy but different modes of, or different states of, the essential cosmic energy. If we create thought we create potential mechanical energy. If man is alive he is so because he can create cosmic energy. To be alive, therefore, means to participate in the creation of the cosmos. It cannot mean anything less than this. Life's dominion over matter consists in its power to generate psycho-physical energy. Now, if life creates mechanical energy, it does that which is physically impossible. Life, then, may be defined first of all as a power to do that which is physically impossible. Apart from physical impossibility there exists no practical impossibility. For life all things are possible.

In the construction of the paraphernalia of civilised life the immediate result of the creative act is thought, and this thought is converted into mechanical energy. It seems not unlikely that all creation follows this course. The quantities of mechanical energy generated in the ordinary functions of organic life may be—probably are—exceedingly minute. As the nervous energy which is used up in the steering of a ship is a quantitatively insignificant element in the mechanics of the ship, so the energy-increments which life adds to the organism may be too minute to be detected by the most delicate measurement. The Law of Conservation of Energy may be empirically valid for the organism as a whole as well as for its various physical processes. Strictly speaking, however, the law of conservation of energy is valid only for inorganic process. This law merely means that mechanical process cannot create or destroy energy and that, consequently, within a purely mechanical system the quantity of energy remains unchanged, no matter how intensive the dissipation of that energy may be, no matter how much potential be lost by the system.

Life is creative force. There is no conceiving of life on other terms. He who denies that life creates physico-chemical energy denies life itself. Those who maintain that life does not create matter but merely moulds it into conformity with

its ends, do so because their notions of mechanics are nebulous. Mechanics makes it clear that matter can be moulded only by adding energy to it.

Now, that which creates matter must be prior to and independent of matter. If there be such a thing as life at all, that life is necessarily a power which existed before matter, and the initial acts of which are not conditioned by organic structure. Vital function is essentially independent of organism. Digestion comes before stomach, sight before eye. The organ facilitates the function, makes it more effectual: it is the tool which the function makes for itself. In undifferentiated living matter vital function is diffused in the whole of the mass: diffused, confused, weak, but not reduced to nothing. The river flows in the river-bed, seems wholly dependent upon its bed, wholly governed by it, seems a mere function of the bed. Yet, when we think, we realise that this is the reverse of the truth; that it is the river which makes the river-bed. Thus also is it with living organisms. Function comes first. The organ is a by-product of the function. Life comes first: the body is a by-product of life.

This conclusion is confirmed by the fact that the potential of life is not a quantity like that of a mechanical system. Every mechanical system contains potential of a given quantity. When that quantity is dissipated there is an end to the mechanism. Physical process visibly and invariably loses potential at every turn, but life, hitherto, has shown no signs of exhaustion. Its potential seems to be as high as ever. It multiplies its numbers and expands its volume, complicates its structure and refines its behaviour; it evolves species in endless variety; it forms civilisation upon civilisation, with their myths and their politics, their arts and their philosophies, without becoming exhausted. The fact that life can spin out of minutest germ a quantity of organic substance sufficient to fill seas and cover continents proves that life's potential is not a quantity, but that it is infinite. In every cell division we see life creating itself out of itself without diminution of potential, and thus demonstrating its infinity. We conclude, then, that life is not a phenomenon resulting from mere action of material forces. Evidently behind the living organism there is a special vital power which so acts on the physico-chemical processes as to give a physico-chemical result that is different from the result that would be produced under the same antecedent physico-chemical conditions without the co-operation of a specific vital power.

Life seems to have two distinct phases—a constructive vital phase passing over into a physico-chemical phase of deterioration. The physico-chemical phenomena which affect our sense-organs and give rise to our perceptions of living organisms may be regarded as the later phase of a process whose first phase is vital and which does not act on our senses because in it no energy is dissipated. A living individual may be likened to a rocket, which, while invisible in so far as it still exists, is yet seen by proxy, as it were. For what we see is not the rocket itself, but the sparks which are no longer a part of it. So also the vital element in the animal or the plant is not immediately visible. It is perceived only indirectly by the peculiar turn it gives to the mechanical processes which it appropriates out of its environment. So soon as the vital act is accomplished fact its result remains there as an increment of physical energy added to the organism. It is the perpetual beginning of the body that constitutes its life. The body is merely a garment which life weaves for itself. The physico-chemical processes which the physiologist discovers are not the proper vital process. In the body we see the creative work of life being undone by mechanical deterioration. The matter of the body ceaselessly deteriorates; the body ever dies and must be restored continually if it shall continue animated. It manifests life only so long as it is being generated by the underlying vital process. Hence we must not imagine that any organic feature has been explained even in the most general way by physico-chemical action. Never can biology become an exact science. Only the physico-chemical manifestations of life are measurable and hence subject to exact scientific description.

The modern mind has grown sceptical about philosophy. It has fallen under the sway of natural science, and between this and metaphysics a seemingly impassable chasm has opened. Here, however, in this idea of life as creative force we have a bridge which spans the chasm, for by means of it the whole of natural science may be assimilated into the metaphysical tradition.

ERNST JONSON.

NEW YORK.

TOWARDS REALITY.[1]

W. H. BROWN, M.A.

"It is in the world of absolute values that we find our immortality. The world of space and time, and what we call existence, is not unreal, but it is only a partial representation of the fully real world of which it is an imperfect actualization. We shall have to consider the meaning of eternity as the form of perfect reality; that is to say, as something much more than an endless succession of points of time."

(*Dean Inge, in the first Warburton Lecture delivered at Lincoln's Inn Chapel, November* 22, 1931.)

It is only by narrowing the meanings of the terms that the relation between Science and Religion can be called controversy. Each is an adventure which calls for the exercise of man's whole being; for the aim of both alike is to explore the fastnesses and the vastnesses of the mountain which is Ultimate Reality. They are expeditionary forces of thought, of imagination, and of faith; and they have journeyed from a far distance. But the approach of each is from a different side; and until they meet, the secrets which they disclose and the results which they promise are so different that they appear to have nothing in common, much less to be advancing towards the same goal. Science has no need of the hypothesis of revelation, nor religion of the impedimenta of material research.

Yet tardily, because reluctantly, each is at length being

[1] *Science and Religion:* A Symposium. By Seven Men of Science; Speakers in Browning Hall during Science Week, 1914. London: W. A. Hammond, Holborn Hall, E.C.

Science and Religion: A Symposium. Twelve Talks broadcast between September and December, 1930. By Representatives of Science and of Religion. London: Gerald Howe, Ltd., 23, Soho Square.

God and the Universe: The Christian Position. A Symposium. By the Rev. S. C. Carpenter; the Rev. M. C. D'Arcy, S.J.; and the Rev. Bertram Lee Woolf. Edited, with an Introduction, by J. Lewis May. London: John Lane, The Bodley Head. 1931.

compelled to acknowledge that it cannot afford to ignore the existence of the other. If the cloud-capped summit is to be scaled, it must be by co-operation between these erstwhile rivals. Religion must accept and incorporate the findings of modern Science, while Science must acknowledge that domain of the spirit in which it has ever lived and had its being, yet of whose very existence its own resources and its own methods are unable to discover any evidence. The issue between them may be as narrow as that between Galileo and the (Catholic) Church, between the Darwinists and the upholders of a six-day creation in the nineteenth century, or between " classical " and " modern " in a public school of to-day; and this merely by a misapprehension of the purpose and common heritage of each, a misapprehension arising from the limitations by which the meaning of the words " Religion " and " Science," in their widest sense, is trammelled.

The objective of Science is the exploration of the nature of things with a view to the elucidation of ultimate truth, by observing and explaining the phenomena of the Universe with the help of the most delicate instruments and of the most subtle processes which human ingenuity can devise out of the materials at our disposal. Its mode of perception is by means of the five senses, and its method of procedure is by deduction from the accumulated data which are the tabulated results of such observation, and of accurate measurement. The generalisations from these data are known as laws; they can with equal justice be called theories or hypotheses. Such laws, when once formulated, become the instruments of deeper vision into the mysteries of natural phenomena; and, as new facts are discovered of which they do not take account, they must be modified, or superseded. The electron theory which took the place of the idea of solid atoms as the basis of matter is in turn in process of being abandoned. The theory of Relativity has supplanted Euclidean ideas of space and Newtonian physics. But it does not follow that the older laws have lost their usefulness as instruments of scientific thought because the truths which they enshrine have been re-stated in new forms, in the light of new facts which research has revealed. Chemical science has been built, and will continue to be built, upon the conception of atoms as indivisible entities which can be hooked together in a manner not altogether dissimilar from that in which Lucretius imagined them to be. The formulæ of Chemistry are but graphical representations of such linkages

of atoms according to the number of bonds with which each is supposed to be provided. Chemical equations, based entirely upon these hypothetical numbers, have neither been, nor are likely to be, in any way modified by newer explanations of the ultimate constitution of the atom. The old method of thinking of electrical phenomena in terms of positive and negative charges has not been wholly superseded; and there is no indication that, for practical purposes, we shall ever cease to assume that the flow of the electric current takes place in the opposite direction to that in which the electrons, which constitute the current, actually move.

Science can formulate no generalisations in regions wherein its own means of perception can accumulate no data. Its domains are restricted to the material, the vital, and the psychic phenomena of the Universe; but within these, every new instrument it forges opens new vistas of possible progress, and every law it discovers lights up the way to another.

Namque alid ex alio clarescet; . . . ita res accendent lumina rebus.

Religion, though intimately concerned with that same ultimate mystery, does not seek to explore its realities by investigating the nature of the things which are manifest to the senses. It observes the phenomena of the Universe, and evinces the utmost regard for the discoveries of science, not so much on their own account, but rather because the beauty and order which is revealed in them speak of another beauty and another order which lie outside the sphere of the things which can be apprehended by the senses, and of which alone science can take account. The concern of religion is with the spiritual world, and its mode of perception is by means of the faculty which is called the spirit of man. That spirit is an inward impulse towards a knowledge of the truth which comes by the heart rather than by the reason. Deep down in his own innermost being man has always felt that the ultimate Reality of the Universe is a conscious Existence, manifested in a conscious purpose running through all the ages towards some final perfection which is utterly satisfying; and in the accomplishment of that purpose he somehow senses that he is a co-worker. That spirit is also an impulse to love; and so human nature craves for intercourse with and dependence upon that higher Intelligence external to its own, of whose conscious existence it is thus aware. Man further realises that the vital spark or inward impulse which

thus feels after that which is highest does so because it is an intrinsic part of that whereunto it aspires: that

> There is an inmost centre in us all,
> Where truth abides in fulness; and around,
> Wall upon wall, the gross flesh hems it in,
> This perfect, clear perception—which is Truth.

It is also an impulse to will; a will to descry from afar, and finally to attain, those spiritual realities which alone can bring satisfaction. For this purpose, religion has instruments of a delicacy far surpassing and of range wholly transcending those of the scientist. They are fashioned from imperishable materials, from the fine brass of character, and from the clear glass of expression.

The first mode of religious insight consists in the incarnation of the highest human possibilities in individual character; in the quality of manhood which comes from deliberately choosing to cultivate and use certain spiritual faculties which in their nature are such that we may use them if we will, but about whose use there can be no compulsion. These faculties are choice gifts of the Eternal Spirit to the spirit of man, imparted for the express purpose of guiding him back to the source whence they came. They are very different from those mysterious and marvellous gifts which we call instincts, wherewith animate creation is endowed, and which their possessors use because they must. Such gifts or abilities, for example, are the justice, mercy and humility of Micah; the faith, hope and charity of St Paul; the wisdom, courage and temperance of Plato. They are gifts which grow only in the using, and it is by the development of the qualities which come from their exercise that the human soul is able to break from its fetters and to attain the vision of the Truth of which it is a part.

The second instrument of vision which religion possesses consists in the expression of the loftiest thoughts of the human mind in literature, in music, and in art. It is the function of a poet, a philosopher, a prophet, a composer, a painter, or a sculptor to feel after that which is highest, if haply he may find it; giving to mankind in words or in harmony, on canvas or in marble, a view of that whereunto he aspires. The emotions which are awakened by the Venus of Milo, by the Mona Lisa or the Sistine Madonna, by a symphony of Beethoven or by all that is loftiest in the literature of the ages, are religious emotions because the eternal truth which they express fans the imprisoned spark that is within us, and kindles it to a flame.

It is equally a religious insight which the scientist gives to us when, in the course of his researches for the benefit of mankind, he displays those qualities of heroism which disclose the operation of the spirit within. It is equally a religious emotion which he feels when the *animi iactus liber*, the leap of faith, has achieved some marvellous discovery which his reasoning powers had foreshadowed. Such we may believe to have been the experience of the astronomer Galen when on that night of September 23, 1846, he turned his telescope towards a certain region of the sky which had been indicated to him, and there discovered the planet Neptune in the very place which had been assigned to it by the mathematical calculations, independently made, of Adams and Le Verrier. Only a fortnight previously Sir John Herschel, the discoverer of Uranus, addressing the British Association, had said about the as yet undiscovered planet:

> "We see it as Columbus saw America from the shores of Spain. Its movements have been felt trembling along the far-reaching line of our analysis, with a certainty hardly inferior to ocular demonstration."

The great need both of religion and science to-day is for mutual co-operation; for every day is showing more clearly that their interests are the same, and that they are leading to the same conclusions. They are no longer water-tight compartments; the barrier between them is becoming ever more and more indistinct. Each in the meantime has reached a deadlock from which nothing can release it except the assistance which the vantage point of the other can give. It is necessary for science to admit, as was pointed out by Professor Bottomley in his address at Browning Hall so long ago as 1914, that religion is her crowning stone: that in the phenomena of the Universe the vital dominates the inanimate, and the psychic the vital, but the spiritual dominates them all. The instruments of spiritual vision which religion possesses, even in partially realised ideals of character and expression, transcend in their range not only the material instruments of research, but the most comprehensive generalisations of scientific theory; just as the eye of the artist is able to perceive values and to disclose beauties which excel, while they crown, those which are visible through the spectroscope of the chemist and the telescope of the astronomer. It is towards the tremendous Reality that dominates the landscape of the soul; that, as it were, "spares but the cloudy border of His base to the foil'd

searching," not only of science, but of religion as well, that mortality is marching.

But it is a fact of science, as it is a truth of religion, that the very light of the sun, to which we owe all our knowledge of the marvels of earth, must be withdrawn before the wonders of the heavens can be seen. Only by a beholder who is in utter darkness can the depths of stellar space be explored. Into the nature of what Dr L. P. Jacks, quoting from Otto, calls that *mysterium tremendum*, history records many marvellous glimpses; but it has ever been from the darkest places of human experience that the clearest views have been obtained. Thus it was that the dark things in Nature, the yew-trees of Borrowdale, the shadows of the clouds of a summer sky lying in spots upon the landscape, or the black star-shaped shadow of a daisy outlined upon the smooth surface of a white stone by the rays of the mid-day sun, brought glimpses of the truth immanent in Nature to the mind of Wordsworth just as clearly as if that truth had been communicated to him by the lips of a living friend. Even so we can picture, as vividly as if the event had already taken place, that vast concourse of a generation yet unborn who will throng the coasts of Devon and Cornwall on the morning of August 11, 1999, in order to obtain, during two minutes of total eclipse, a fleeting glimpse of the sun's corona, and of the ruby flames of the solar prominences. It will not be by those who stay in the sunshine, but only by those who turn aside to seek the shadow, that even the fringe of the sun's garment will ever be seen. It is a symbol of that Divine Reality Whom, from out the depths, the saints and martyrs of every age have seen as through a glass darkly; Who at Horeb covered Moses with His hand, while His glory passed by. It is a symbol of the Vision whereby the tragedy of the Cross became the Light of the world.

Towards that Vision, and towards that Reality, science, relying upon itself alone, stretches forth its hands in vain; for the unaided reason cannot grasp the Infinite, however much its bounds may be extended. Indications, moreover, are not wanting that a limit of possible progress is being approached; that the goal is beyond an ocean upon whose ∨rge science is brought to a stand-still, like Cortez upon a peak in Darien. Its aids to vision, its microscopes and telescopes, its diffraction gratings and interferometers, are unable, by reason of the very texture of the materials of which they are constructed, to penetrate the secrets either

of the infinitely small or of the infinitely great. Under the most favourable circumstances the margin of error in physical measurements may conceivably be reduced to one part in a million : but we can be perfectly certain that it will never be possible to attain the degree of accuracy which would provide experimental evidence even of the existence of phenomena which modern theory predicates. According to the theory of Relativity, the earth's diameter shrinks along the direction of its orbital motion round the sun, on account of that motion, by something less than three inches. In his book, *The Mysterious Universe*, Sir James Jeans tells us that when a giant liner is travelling at full speed across the ocean, her motion increases her weight by the millionth part of an ounce ; and that a vertical sun sheds light upon the earth at the rate of one ten-thousandth of an ounce per minute over every square mile. These quantities are known with fair accuracy, and are vital to the theory ; but we may as well eliminate at once the possibility of their direct measurement. In the domain of Chemistry new elements and new compounds will continue to be discovered, nor is it beyond the imagination that life may yet be generated out of inanimate matter. The infant sciences of radio-activity and wireless transmission have yet to yield up to us their most marvellous practical applications ; the internal energy of the atom will be tapped, and the transmutation of the elements into one another will be brought under control by a future generation. But in respect of those observations by which alone the exact sciences can lead us to an understanding even of the material basis of the Universe, the windows through which we have hitherto looked are darkened, and the pitcher is broken at the fountain of further knowledge. When we read of Professor Piccard's ascent to a height of ten miles into the upper strata of the atmosphere, and of the conquest of Kamet ; when we hear in the perhaps not distant future of the successful ascent of Mt. Everest, and of secrets wrested from the unplumbed depths of the ocean, we realise, and shall be increasingly conscious, that these exploits are reaching a limit which in the nature of things cannot be greatly surpassed. It is a daring thing to-day for anyone to say of any seemingly impossible conquest of Nature, that it is beyond the power of science to achieve it ; but even in full knowledge of the advances made in recent years, no one would be so rash as to predict that we shall ever reach the interior of the earth, effect a landing on the moon, or establish communication

with the inhabitants of Mars. Meanwhile, the question for us is the same as that to which the philosophers of Greece and Rome sought an answer. Whither is science leading us? Is it towards or away from the conclusions of religion? Are the tremendous discoveries of the past century able to be reconciled with a belief in an ultimate Mind immanent in the phenomena of Nature, and in creation; or do they only lead to a view of the operations and processes of a blind chance? Is the soul of man the product of design, or is he a mere accident, a fortuitous concourse of atoms? The scientists of the nineteenth century regarded the Universe as a great machine, set in boundless space. They were confronted with the same problem: did the existence of so delicate a workmanship, like the watch of Paley's celebrated argument, postulate a maker; or did the machine make itself, and keep itself going? The advent of Relativity, and recent researches into the physical constitution of atoms and stars, has destroyed that mechanistic conception. It was Lord Kelvin who said that he could not understand anything of which he could not construct a model; and the science of electricity, in particular, has been greatly illuminated by the mechanical analogies and graphical images with which its phenomena have been so freely illustrated. The intricate structure of Organic Chemistry was built upon the mental picture of a carbon atom which had the shape of a tetrahedron. Every atom of carbon could, therefore, be represented by a stationary model which could be attached to a similar and neighbouring one either apex to apex, along an edge, or by superposition of triangular faces, to represent connection by one, two or three out of the four bonds which each was imagined to possess. This conception of a tetrahedral carbon atom served its purpose well. It was understood that it was only a symbol of the actual mode in which the atoms were united to form complex molecules; but even as such it must now be relegated to the limbo of obsolete and discarded hypotheses. Nevertheless, its usefulness as an instrument is far from over; and it is impossible to overestimate the value of this transitional stage of representing the Daltonian atoms by stationary models, such as are in use to-day in every laboratory in the world. It is hard to see how the understanding of the structure of the carbon compounds could ever have been arrived at; how such complex substances as indigo and sugar could ever have been built up by the synthesis of their constituent atoms; and how, amongst other things, the aniline dye industry

could ever have been developed, if the electron theory of the atom had come a hundred years ago.

The transition from the theory of solid and eternal atoms which held the field from the days of Democritus until the end of the nineteenth century, to the incredible emptiness of the complicated system of nucleus and revolving electrons which has succeeded it, is like the dissolving view of the old-fashioned biunial lantern, so popular in the days of the lime-light. The blur of the old picture, which was so clear, is still upon the screen; the new picture is not yet sharply defined. But out of the confusion, as through clearing mists, two inevitable conclusions emerge. The first is that the total content of all that we are accustomed to think of as boundless space, of which all that we can ever hope to see is but as a grain amongst the sands of the desert, is finite and not infinite. The unfathomable *omne* with its countless universes only appears to be infinite to us, whose minds can only grasp three dimensions, in the same way as a worm, which could only burrow in the peel of an orange, would get the idea of living in a boundless universe because it would never come to any end, and could never imagine even a third dimension. Moreover, those silent eternities are finite also, between which time's great transactions, the making and unmaking of universes, pass like a weaver's shuttle. The utterly infinite and eternal, on the one hand; and the absolute zero both of time and space, on the other; these are so far removed from the human imagination on account of its three-dimensional limitations, that the proposition formulated by Lucretius must remain as incomprehensible to us as were actual happenings to the prisoners of the cave:

> Ergo rerum inter summam minimamque quid escit?
> Nil erit ut distet; nam quamvis funditus omnis
> Summa sit infinita, tamen, parvissima quae sunt,
> Ex infinitis constabunt partibus aeque.[1]

And the second conclusion, towards which science is leading, is that a new conception of the Universe is appearing as that of a living and self-conscious organism which is the expression of the thought of an infinite Mind. This is not a new conception to religion, which has ever been accus-

[1] *Lucretius*, Bk. 1, Lines 619–622.

Wherefore betwixt the sum-total of all, and absolute zero,
Will any difference exist? There can be no distinction whatever.
For how boundless soever the Universe can be imagined,
Yet will the things that are least be equally infinite also.

teemed to regard as the revealed Word of God that three-fold expression of the Divine Mind which is found in perfect Man, in Holy Writ, and in the created Universe alike. And herein lies the key to the whole secret. It is precisely at the point where the measuring rods of science cease to function that we are brought face to face with that "something" whose nature is imperceptible to, and unmeasurable by, scientific methods. The problem is far from being a new one, for it was one of the earliest with which philosophy attempted to deal. We are carried right back to the doctrine of Anaxagoras that the motive force of all things is mind, and that the perceptible aggregates which compose matter are but vortices or rotatory movements in an imperceptible and ethereal medium, brought about by the design of that conscious and all-pervading essence. The question was asked by Lucretius:—

> Libera per terras unde haec animantibus exstat
> Unde est haec, inquam, fatis avolsa potestas
> Per quam progredimur quo ducit quemque voluntas,
> Declinamus item motus nec tempore certo
> Nec regione loci certa, sed ubi ipsa tulit mens ? [1]

He could only surmise an unexplainable *quiddam* :—

> tamen esse in pectore nostro
> Quiddam quod contra pugnare obstareque possit.[2]

And so it was necessary that the Epicurean theory of the fortuitous concourse of atoms should be supplemented by investing those atoms with a "swerve"; and this swerve is recognised by Lucretius to be the underlying and sole cause of the power of free-will :—

> sed ne mens ipsa necessum
> Intestinum habeat cunctis in rebus agendis
> Et devicta quasi hoc cogatur ferre patique,
> Id facit exiguum clinamen principiorum
> Nec regione loci certa nec tempore certo.[3]

[1] *Lucretius*, Bk. II., Lines 256–260.

> Whence derive all earth's living creatures
> That independence of theirs' ? How, I ask, was from destiny wrested
> Power whereby we progress each whither his free-will directs him ;
> Whereby we change our course by no external compulsion,
> But only when and where mind's inner volition has prompted ?

[2] *Lucretius*, Bk. II., Lines 279–280.

> Yet, natheless,
> *Something* exists within our breast which can stand and resist it.

[3] *Lucretius*, Bk. II., Lines 289–293.

> Now : that the mind is not bound, in like manner, by inward compulsion,
> Neither is overpowered, as it were, and forced to conform to,

And yet he subsequently lays down as a vital part of his theory that the atoms which experience the swerve can themselves have no feelings whatever :—

> neque id manufesta refutant
> Nec contra pugnant, in promptu cognita quae sunt,
> Sed magis ipsa manu ducunt et credere cogunt
> Ex insensilibus, quod dico, animalia gigni.[1]

But to our own Dr Bridges in the *Testament of Beauty :*

> 'tis no far thought that all the dumb activities
> in atom or molecule are like phenomena
> of individuat selfhood in its first degrees.

Nor is it a much farther thought that the Universe is a sentient existence with a conscious purpose ; a temple of a living soul whereof our own little bits of consciousness are parts. This truth is the same as that to which poets in every age have tried to aspire, and to which St Paul gave expression at Athens when for the first time he brought into contact —and, alas, into collision—those two pinnacles of human attainment, the life of Jesus Christ, and the glory that had been Greece ; the truth, namely, that God created the Universe a living soul, and that we are *also* His offspring. It is the word " also," so frequently omitted, which gives to this quotation from Aratus its significance, and converts what would otherwise be a mere platitude into the greatest thought which was ever introduced into Christian philosophy from pagan sources. There was no necessity for Paul to go to Athens to teach that man is God's offspring. The point is that he is *also* God's offspring, in addition to that which was mentioned before. Taking for granted that the world and all things therein are the offspring of God, the argument is that we are the offspring of God in exactly the same sense. The force is emphasised by the inversion of the expected order ; he does not try to show that the Universe is the offspring of God in the same sense as we are, but that we are the offspring of God in the same sense as the Universe. Then, again, if we notice the plural, " certain of your own *poets*,"

And to suffer the sway of the forces which dominate matter,
Altogether results from a tiny swerve of the atoms,
At no particular place, and at seasons quite undetermined.

[1] *Lucretius*, Bk. II., Lines 867–870.

Manifest tokens outspread before us, which all can examine,
Are so far from disproving or contradicting this statement,
That they themselves take our hand, and make us believe, as I tell you,
That live things are begot from dead, insentient, atoms.

we are reminded that this is not only a quotation from Aratus, but that the same expression is used by the Stoic writer Cleanthes; and we see how cleverly St Paul uses one of their own poets to confute the pantheism of the Stoics, according to which the soul of the Universe is identical with God. For God is not the soul of the Universe, but the conscious Existence Who created that Universe. The soul of the Universe, equally with the individual soul, which is a part of it, lives and moves and has its being in and from Him Who is above all, and greater than all, and the Parent of all.

Science, then, is leading towards the same view of that Ultimate Reality as revelation through poets and prophets and every other channel which religion comprehends and envisages. That view will disclose the final purpose that perfected man, and other creatures than man in other worlds than ours, will complete God's own perfection by being able, through knowledge of Him, to enter into and to reciprocate His infinite joy in a sentient Universe which proceeds from Him

> in Whom is life for evermore,
> Yet Whom existence in its lowest form includes.

Yet there is no view of God to those who only see the material phenomena of the Universe, which clothe while at the same time they conceal the soul that is within. Man has gone forth to the work and to the labour of scientific research until the evening, when he can see no more; until night has come, when no more work is possible. But it is when

> all the towers and temples and mansions of men
> face him in bright farewell, ere they creep from their pomp
> naked beneath the darkness;

that it is given to mortal eyes

> to watch
> where uncurtained behind the great windows of space
> Heav'n's jewel'd company circleth unapproachably.

Then it is that the knowledge, which is of the already waning daylight, wherein

> "Science moves, but slowly slowly, creeping on from point to point,"

is exchanged for the wisdom which lingers until it is revealed in the larger vision of the night. This is why Tennyson ever makes the peace and calm of evening, not a time for rest, but the prelude to a new adventure and the urge to a fresh enthusiasm: whether it be the boy, "when first he leaves his father's field," eager-hearted for the untried adventure,

" And at night along the dusky highway near and nearer drawn
Sees in heaven the light of London flaring like a dreary dawn ; "

or whether it be the old man Ulysses, weary from the well-tried adventure, and saying :

something ere the end,
Some work of noble note, may yet be done,
Not unbecoming men that strove with Gods.
The lights begin to twinkle from the rocks :
The long day wanes : the slow moon climbs : the deep
Moans round with many voices. Come, my friends,
'Tis not too late to seek a newer world.
Push off, and sitting well in order smite
The sounding furrows ; for my purpose holds
To sail beyond the sunset, and the baths
Of all the western stars, until I die.

We find the same thought in the similitude of the crossing of the bar :

Sunset, and evening star, and one clear call

to put out to sea ; not now to strive, but to be carried, silently and effortless, on the out-going tide which is too full for sound and too swift for return, over the bar and into the night ; but the pillar of cloud which led by day, withal obscuring the view, becomes by night the pillar of fire whose guiding light, in this new adventure, is the only view.

The conclusion of the whole matter is perhaps most aptly summed up in a paraphrase of some concluding words of Plotinus by Dr Bridges, which form the 69th passage of his war time anthology, "*The Spirit of Man.*"

> " For the absolute good is the cause and source of all beauty, just as the sun is the source of all daylight, and it cannot therefore be spoken or written ; yet we speak and write of it, in order to start and escort ourselves on the way, and arouse our minds to the vision ; like as when one showeth a pilgrim on his way to some shrine that he would visit : for the teaching is only of whither and how to go, the vision itself is the work of him who hath willed to see."

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SCIENCE IN HISTORY.

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LONDON was the scene last July for the first time in her history of a gathering from all parts of the world of men moved by a new idea, new, though touching some of the oldest and deepest parts of our nature, profound, though in contact with all the familiar things of daily life, above all comprehensive, as bringing together every side of our thinking being and every nation of civilised men. This was the International Congress of Science and Technology, the second meeting of the kind ever held. Of all the national deputations which filed up to be received by the President of the Board of Education, two attracted special notice, that from the United States because of its length, and that from Russia because these straight dark-bearded men had flown from Moscow with their contributions to the discussion and were determined to be heard. Both parties were here in force, on a footing of full equality in the realm of science, although they appear only on special occasions, and not as members, at the League of Nations.

The significance of all this lies in the new union thus proclaimed between science and history, a union which implies on the one hand the importance of the historical aspect of science, and, on the other, the key position of science in our general conception of history. Educated mankind has now, though recently, acknowledged the necessity of this union and showed by the presence of so many interested and competent minds an anxiety to discuss what has caused it and what it may be expected to bring forth.

It may well seem strange that so obvious a piece of synthesis should have waited so long for general recognition. Men have been putting in order their knowledge about nature and applying it to modify the conditions of their life

ever since civilisation began. This is science and technology. And from the beginning of writing they have recorded what seemed to them the most memorable facts in their personal and social existence. This is history. The gap between the two sides of their activity, the treatment of the thinking about nature and the guiding of men as two independent faculties, arose from the difference in prominence and initial importance of the leading practitioners of those arts, especially in early times. Alexander and Aristotle; who would have thought in their lifetime, or for long afterwards, of even putting on a level, or of tracing more than a personal link, between the world-conqueror and the tutor and collector of biological specimens? Centuries pass, and men are found in doubt as to the supreme greatness, certainly the indispensability, of the conqueror, while the tutor is hailed as the greatest of all the builders of the universe of thought in which we live. Nor need we complain too loudly that this is so; there are good reasons and solid compensation. It was of the first importance in early days that men should be taught, or made, to live peaceably together and practise the arts of peace from which wealth and organised knowledge spring. It was necessary, too, that these settled communities should grow in size, if a world-order were ever to arise which might combine the activities of the various groups to the greatest advantage. Now, although the power of abstract organising thought was at work from the beginning, the right arm of the conqueror and state-builder was stronger and far more obvious to the popular eye. How did this social state in which we live come to be as it is? This is the fundamental question of history, whether we are considering the family, the tribe, the town, the nation or mankind; and the answers which first suggested themselves turned naturally round the great figures who commanded armies, offered sacrifices to the gods and were—alive or dead—worshipped as gods themselves. Hence come the earliest answers to the riddle. Some god or godlike man had built up the society, or given the town, or made the laws—Menes, Manu, Hellen and all the host of founders.

This divine attribute of the state-builder lingered long and is by no means extinguished yet. It is the main ingredient in history as hitherto written, until the modern age, when at last the manifest works of science thrust on men's notice the other side of the main division of our activity.

Science in the modern world has so clearly transformed our life and modelled our thinking that it was bound in the

end to invade that region which had been shaped and hedged for ages by the divinity of kings and conquerors. From the seventeenth century onwards men have been more and more impressed by the power of science, when consciously applied, to change the conditions of life: the visions of Bacon and Descartes, made ecstatic in the revolutionary age, are now seen not to have been baseless. More, in fact, in many ways has been accomplished than they ventured to dream of, and, looking to the future, the prospect seems illimitable. This is the new fact in our own times which has produced that fusion, or alliance, of history and science, of which the recent international congress is the speaking symbol. For looking further backward, in the light now shed by the modern triumphs of science, it was natural to ask, What if the progress of collective thinking should prove to be the master-key to social evolution? Not the earth—or physical conditions—in the first place, not the gods, or god-like men of legend and early history, have made our social life, but men thinking together about the world and themselves have made us what we are.

There are, of course, critics to answer and many qualifications to be made. One powerful school of historians would seem prepared to apply to their studies the pæan which the Greek poet sang to Tuche:

> O Chance, suggesting many a plan,
> Attaining many an end for man,
> How oft when wisdom's titles shine
> And craft claims praise, the work is thine!

It is the spirit of Pascal's assertion that, "if Cleopatra's nose had been shorter, the whole face of the earth would have been different."

The fundamental issue between those who, in the spirit of Pascal's famous jest, would base history on accident and those, like the recent Congress, who connect it with the growth of science, is nothing less than the rationality of the known universe. The highest achievements of man's mind—the most rational thing in our experience—are by general consent to be found in art and science. Of the two, science shows most indubitably the marks of progress and must therefore be treated as the best evidence of that "increasing purpose" through the ages on which our belief in that rationality rests. This truth has so much impressed the minds of some who have realised it, that they have proclaimed, like Du Bois Raymond, that "History *is* the history of science." But the truth thus unqualified becomes almost

untrue. No history, and least of all political history, can be read as a plain, straightforward proposition, a piece of abstract thinking. All of it, including the history of science and philosophy, is a process in space as well as time, and subject to the apparent accidents which surround our life. It is realised in the lives of men who, as Pascal has told us in another "pensée," are weak as reeds swaying between two infinites. What those maintain who look to science as the leading thread in history is merely this: his power of abstract and progressive thinking is man's prerogative; by exercising it on his environment he has modified the latter increasingly to his advantage; this process has gone on through historic time and has influenced social life in manifold ways; it is the clearest clue to follow, certainly in recent, probably also in earlier, periods.

It will be observed that these remarks, though they sound plausible enough, are of a very vague and general character. Here the critic would be on solid ground. "Show us, he might well say, how the scientific spirit has acted in any age before our own (where it is clear enough) and we shall be in a better position to judge of the force of the argument." The challenge is a fair one; the only excuse for the scantiness of the material on which to base a reply is the newness of the study. Whewell in the "forties" was the first man in England to attempt a connected history of science, and it would be difficult to name anyone who had done the same thing abroad before that time. A hundred years covers, therefore, the period during which men have been specially investigating the subject. It is the period in which the doctrine of evolution has become dominant in the biological and historical fields, and the sciences of archæology and anthropology have been created. All these contributory streams have flowed together, and before this international conference was thought of, work was being done at many European and American centres on the history of science and civilisation. The linking of the two is the capital point, and has always been put in the forefront of his programme by Dr George Sarton, who leads the movement by the abundance, accuracy and devotion of his labours. He is of French-Belgian origin, but he found a home in the United States during the war, and is now assisted by the Carnegie Trustees. His journal, *Isis*, edited at Harvard, printed in Belgium, and written—as is found most convenient—in any of the five leading languages of the West, is easily the most comprehensive and authoritative organ.

As in all branches of study at the present time, material accumulates far more rapidly than the power of assimilating it, and of tracing its bearing on other sides of human evolution. If, therefore, any sketch is attempted, it must be rather in the nature of a signpost pointing in the direction of results to be reached than of a record of conclusions firmly established.

The chief area of recent discoveries lies in pre-Greek times, where lately interpreted papyri, of Egyptian and Babylonian origin, seem to re-create for us a world where science in a broad sense of the word must be allowed to have existed as an integral part of civilisation long before the Greeks gave it the definite form which we have inherited. Of this science we have now records of three kinds describing early mathematics, medicine and astronomy. They are important probably in that order, though the fact that the Egyptians had by astronomical observation established a calendar in the fourth millenium B.C. must have had high social value. At once the question which pursues us throughout these inquiries springs into sight: How far did the foundations of science thus laid serve the purposes of that early "theocratic" civilisation, so widespread, so stable, so potent in its influence, so exquisite in its minor arts? The answer, though necessarily general and tentative, is clearly indicated in its general bearing. The establishment of science involves and strengthens the stability of society. The action is reciprocal, but as the essence of science is finding identity in difference, we may fairly conclude that the society or men devoted to it will become *pro tanto* a stabilising influence. Whatever else it did, it counted for order.

The case is clearer at the next and better-known stage of the Greeks and Romans. About the exact scientific value of the early Egyptian thinking we are still in doubt, but on the work of the Greeks we have now floods of light. Sir Thomas Heath has given us this year the best short account extant of Greek mathematics (with many sidelights on their astronomy). It is to be hoped that this will make its way without much delay to our homes of classical studies where hitherto the defenders of the Greeks have been fighting their cause without the use of the best weapons at their command. There is now, indeed, abundant light, but it needs to be focussed on the main topic of all history, the building up of a stable and yet progressive social order. This was arrived at in that age by the union of the two forces, kindred but diverse, the Greek with his inquiring, idealising, *i.e.* specially

scientific, mind, and the Roman, with an analogous impulse to find common terms in law and government for widely varying peoples. The interaction of the two and their joint effect in founding Western civilisation is the right ultimate object of classical studies, and those engaged in them will be greatly strengthened and their aim improved by the new movement. Let but the defenders of the fort look out on that side from which their true help may come.

There is indeed no limit to the scope of this inquiry, nor, it would seem, to the all-pervading creative genius of the Greeks. Since this article was begun, evidence has come to light which makes it almost certain that Copernicus in the first sketch of his doctrine in the *Commentariolus* was directly inspired by what he had learnt of Aristarchus from Plutarch. But this side of the great subject, and all that we may learn from further investigation of ancient records, are subordinate both in interest and in cogency to the evidence which lies open before us in the modern world. Here the effect of science is palpable and overwhelming. So great is it in certain aspects that the legend of Frankenstein might seem to have come true and man be likely to fall a victim to his most magnificent creation. In war it would clearly be possible; in peace also the arts and enjoyment of life stand in some danger from the triumphs of science. But this is not our present topic; we must look to the future and man's recuperative powers to redress these evils. One's first task always in taking stock of a position is to estimate its strength and make the best use of its resources.

In the modern world science made a fresh start, but not from fresh roots. The continuity was unbroken though obscured. Mathematics, astronomy, geography, biology, medicine, acknowledge their ancient lineage. But the new start was made on a far wider field, and in a freer and more hopeful spirit. Above all, there were no slaves to foster the superstition that manual work or the practical applications of science were unworthy of a gentleman.

These changes in the general state of society are more than enough to explain the difference in the sequel. They were due mainly to the influence of Christianity which intervened between the decay of ancient and the rise of modern science. But it is more to the point here, in taking a general survey, to dwell on the similarity of the mental process which was the chief driving force both in Greco-Roman and modern Western civilisation. The leading figures in the modern movement were three men, an Italian, a Frenchman and an

Englishman—Galileo, Descartes and Newton. They all illumine the seventeenth century, and it has often been noticed that the last is singularly connected with the first by being born in the year after the death of his great predecessor. All three distinguished themselves by outstanding feats of synthetic thinking, capital points in the essential process of building up science. Galileo, the first as he was the greatest of the founders, noted specially, among the multitude of natural phenomena which he studied, the similarities between the behaviour of various falling bodies. On these he was able to found the science of dynamics, and came within an ace of anticipating Newton. The mental act was the same as that of the Greeks, though its field was different. The Greeks, geometrising always, had missed the truths of moving bodies. Newton, connecting the laws established by Galileo for terrestrial gravitation with the movements of the heavenly bodies, made clearer by Galileo's telescope, arrived at the largest of all mechanical generalisations. From this the mechanical framework of modern civilisation has arisen which Einstein has but corrected from a new point of view. Descartes, the intermediate thinker of the trio, by another act of synthesis, linked up geometry with the general art of calculation and led to the most potent instrument of mathematical research which Newton and Leibniz applied to infinitesimal quantities. All this is familiar matter in scientific history; what has not been generally noted is the parallel and connected work in social and political organisation.

It is not enough to point out the direct results of scientific thinking in the transformation of industry and the amelioration of life. This, as we all know, is vast, obvious and rapidly increasing. What is more important, though far more difficult to grasp, is the parallel change in the general mental outlook of the societies where exact science is being developed. Here we cannot say definitely and with confidence, that such and such things followed because Newton discovered the law of gravitation, or Leibniz the calculus. Yet we know that, while their minds were working on those lines, a multitude of other men were thinking in more or less similar ways. The exact, brilliant and influential formula which they devised was also a symbol of a mass of more diffused collective thinking which characterised the age and society in which they lived. This is the truer in proportion to the degree of social union and intellectual progress that the given society had already achieved. England and France from this reason

were able to make earlier use of the new science of the seventeenth century in re-organising their industry and government, and England most of all, because she was the most united.

A few illustrations will make the point clearer, and they will be found set out in due detail and in their proper setting in Mr G. N. Clark's recent study of the *Seventeenth Century*. It is an admirable piece of historical writing, and specially commendable because, like so few books on general history in English, it recognises the importance of the scientific evolution and indicates, quietly and tentatively, its natural connections with other sides of social process. The most striking of the facts is the spread of social and governmental organisation which accompanied, or shortly followed, the organisation of thought. Means of communication, posts, coaches, and so on, are organised from one centre for the first time in this age. Greater order is introduced into finance and military and naval matters. Later still, in France, a common system of law is established, and in France the connection for which we are now contending is the clearer because the practical work was often carried out by the same men, like Turgot, who were immersed in the struggle for intellectual synthesis.

Organisation is thus a clear example, and it is fundamental. It implies the collecting in the mind of similar things and subordinating them to a common rule for a common end. Precisely the method of science, with a practical application. But there are other psychological factors involved. Some might think even more fundamental the gradual acquirement of the conviction that, *pace* Sir Arthur Eddington, there are uniformities of sequence in nature on which we may absolutely rely, and that, though we may modify her arrangements for our own ends, we can do so only by obeying her "laws." The disquieting antics of the infinitesimals of physics do not appear to qualify in any practical sense this main conclusion, and, while we are discussing in the laboratory the "indeterminism of the atom," the transformation of the world and the education of mankind proceed apace on the lines of determinate science.

The word education—in this wide sense—brings me at last to the supreme issue in this contact between science and history which is being played out on the grand scale in our own days. Science dominant in Western thought and industry on the one hand, and the great mass of mankind still below the standard of scientific thinking on the other;—

that, with its thousand ramifications, is the problem of this century and the next. Grave as we see it to be in its most flagrant cases, Russia, China, India, South Africa,—any country where a mass of untutored people are in contact with a spear-head of scientific industry and government—it is always of use to trace things to their root. So often we confuse the issue and waste our time by palliatives, little in the spirit of the science by which in this new age we should be inspired. Moreover, on an accurate picture of the facts and a sober balance of gains and losses, we may find at least as much cause for satisfaction as alarm.

As a world-fact, this contact of a highly organised, scientific and industrial civilisation with a mass of more primitive populations is the most prominent in the nineteenth and twentieth centuries. It provoked directly the most rapid transformation of any society ever witnessed in history —that in Japan. It has led to vast social and political upheavals, yet unsolved, in India and elsewhere. It is the cause of acute industrial competition from mills in the East, and Black labour in Africa. It is probably a contributory cause of the world-wide unemployment. There can be, therefore, no suspicion of an attempt to minimise either evils or dangers if we apply for a moment to this larger field the same rough test which seemed to give distinct results in Europe and the West. Are there signs of better order and organisation, of more fruitful application of natural laws in the less advanced social sphere, as we found them to accompany the spread of science in its original home? Are there any other more hopeful features which might serve as a basis or introduction to the critical changes which seem certainly to impend?

The first answer to these questions must be that wherever, and just in so far as, Western scientific civilisation has imposed itself firmly, there peace and order have been induced into a less orderly society. The comparison of India and China is conclusive on that point. England, France and Holland, differing widely in their colonial methods, have all spread order in tracts of the earth's surface far larger than their homelands, and made men and produce multiply under their guidance. All these regions are being knit up by social and political organisations as close and as beneficent in intention as the originals in Europe from which they are drawn.

Much still remains to be done, and South Africa—the testing case in the British Empire—has not yet reached the point of treating her black majority of inhabitants as part of

the complete national unit. They were actually not enumerated in the recent census of May, 1931, and are still subject to many industrial and civil disabilities. But a new spirit is now awake, and the process would be much more rapid than it is, if the teachers and students of history realised that the important things in the human record are not the enormities of Chaka or the Nine Kaffir Wars, or even the squabbles of Boer and Briton, but the steps that have been taken to secure a more united economy for the whole nation and a better national dividend from the soil.

As that new spirit in the study of history spreads—the natural offspring of its marriage with science—it will be found at once that no satisfactory work can stop at the boundaries of the nation. It must be in its goal and its genesis world-wide, and international connections that it will be sought at every point. This is perhaps the most fruitful aspect, as it is the most certain test, of the scientific spirit. It was clear in the beginnings of civilisation, for Egyptian, Sumerian, Indian, Mexican and Chinese may all claim some share in the initiation of work necessary for the stability and progress of all. It is even clearer now, when men have agreed to refer to an international tribunal questions of common moment which may divide and should unite them. Those weaker and less advanced peoples will find in the League of Nations their best safeguard. It touches them already in many points, and, as friction at the centre dies down, more thought will be given to the larger but more remote questions which embrace the inarticulate majority of mankind. The League is the latest product of scientific organisation on the practical side. It would have been impossible in a pre-scientific age or among non-scientific nations. Any view of history therefore, which would be true to the ideals discussed in London in July, must find a large place for the League of Nations, its meaning and origin and possible scope. To make the League a growing reality is to refute in the most decisive way the indeterminists who see no purpose in history.

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WELWYN GARDEN CITY.

THE SENSUS NUMINIS AS THE HISTORICAL BASIS OF RELIGION, I.

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In my book *The Idea of the Holy* reference is frequently made to Wundt and his attempt to derive religion from animism. It is the most significant of all the efforts yet made in this direction. In the following article I shall, on the one hand, trace the lines of his argument, and, on the other hand, contend that he came to grief, and had of necessity to come to grief, because he ignored the numinous sense—the fundamental element of religion, and, therefore, later failed to realise the significance of the category of the Holy. My interest lies not so much in Wundt's definition of the essence of developed religion—that is all too inadequate—but in the supposedly mythological origins of religion and in the genesis of the myth itself in "animating apperception."

Wundt's *Folk-Psychology* (*Völkerpsychologie*), and especially those two impressive volumes on myth and religion with which I am here concerned, is the work of an all-embracing and deeply penetrative mind. The wide range of the whole work, the keen scrutiny of the individual parts, the vast bulk of the material worked through and the assembling of this under the guidance of a clarifying point of view, the sensitive and expert analysis of basic impulses and prevailing laws, the solution of historical entanglements, the delineation of the greater and lesser lines of development,—these claim ever anew our wonder and admiration. His monumental work on *Folk Psychology* is intended to furnish "an examination of the laws of evolution in speech, myth and morality." In the following pages I shall attempt to give an account of its methods and results as regards "group-psychological"

origins of religion, and to determine what should be our attitude thereto.

As, according to Wundt's definition, the progress of mature religion and its particular forms do not come within the sphere of "Folk-psychology," the main contents of these volumes are an examination of the preliminary stages of religion or the phenomenology of the early forms of religion. They are not a mere collection of historical data; they are a discerning analysis of the psychological elements from which religion arises, of their distinguishing features, their origins, and their gradual development.

(A) The growth of myth and religion is conceived by Wundt as closely connected with, and corresponding to, the growth of speech, art and morality; and it is maintained that the former, equally with the latter, are a product not of individual effort but of the general community. The object of this examination is, therefore, not an individual but a group or folk psychology. What is that?

In opposition to the one-sided individualism of the school of the *Aufklärung*, the German school of the "Romantics" recognised the peculiarity of the "community form" of ideology, and its value for every province of the intellectual and spiritual life of man. De Wette proclaims this discovery of group feeling as a revelation in his semi-philosophical novel *Theodor*, while in his *Dogmatic* and still more in his book on *Religion, its Nature, Forms, and its Influence on Life*, he makes a significant application of this recognition to the philosophy of religion.[1] Schleiermacher accepts as part of his ethic these "universal forms" of group production, while it was the determining point of view for Hegel in his historical, religious and ethical philosophy (the doctrine of Objective Spirit). But Wundt bases himself, not upon these forerunners, but on Bastian, Steinthal, Lazarus,—on modern ethnology and its evergrowing investigation of the dawn of the human spirit in social, political, religious and cultural life. At the same time, whilst he determines more clearly the nature of folk psychology in distinction from the bare psychology of the individual, he wishes to secure for it a place as a psychological science and to set a limit to the encroachments of neighbouring branches of research. It is for him "a domain of psychology" to be distinguished from history, national development, the growth of literature and poetry; and he claims it as a true parallel to individual

[1] For De Wette's work, see R. Otto, *The Philosophy of Religion*, p. 151, *sqq*.

psychology. The latter is limited to the investigation of the facts of immediate experience as they are presented by the subjective consciousness, but refrains from analysing the phenomena that result from the reciprocal actions of a community made up of individuals. But folk psychology examines those factors which lie at the basis of the general development of human society, and those spiritual products which are generally recognised as of value and validity. The evolution of speech, art, myth, religion and morals is included in its sphere, while other branches of study are excluded. It comprises those stages of spiritual development which are achieved by the community as a whole, without the predominance of individual effort. Where the latter occurs, the territory of group psychology ends and that of history begins, so that the history of literature, art and science, are outside its scope. Folk or tribal psychology is, on that account, strictly speaking an unsatisfactory name, because the tribe is only one of many forms of the community. Still, it is the most important, and the term may, therefore, be allowed to stand.

(1) There are two main characteristics of the communal product. In the first place, many individual members of the community have undoubtedly contributed to it, but in such a way as to prevent its being traced to any one individual. In the second place, these common products, despite manifold differences and distinctions in particular instances, can be recognised according to certain universal laws of evolution. It is in the discovery of these laws that the ultimate and most important task of folk or tribal psychology lies.

(2) Wundt himself emphasises the fact that the lines of demarcation are in a state of flux. Probably they are even more so than he admitted. For, in the development of the general, mythological apperception, all members of the group are not co-operating together equally. Even in its simplest form this apperception is already understood as fantasy. But this is capable of all grades of development, and even at the lowest stage there will have been individuals especially gifted in this direction who stood out above the generality of their fellows. The same applies more and more to the complex achievements of fantasy. Even the crude fable presupposes the power of invention, and is not made of itself—it claims an inventor. Further, the preservation of folklore, the capacity for repeating stories, the greater interest in the subject-matter, the power of receptive listening, the use of imagination to connect the familiar and invent the new, and

the gradual refining and purifying of forms,—all this is just as much a question of individual talent as, at a higher level, is poetry itself. The recounters of fables, the story-tellers, the leaders of the chorus, are not the community but individuals, and these individuals in all ages are exceptional persons.

(3) It seems to me questionable whether a community psychology is possible alongside ordinary psychology, if the word in both cases is to retain the same meaning, for the community spirit, at least for science, is not a true entity when viewed apart from the achievements of individual personalities. I venture to maintain (*a*) that the products of the so-called group imagination, which Wundt had in mind, are related simply to that fantasy and feeling which arise in the individual, are shared among contemporaries and handed on to succeeding generations, knitting them together, and become the stimulus by which new conceptions and emotions are aroused, fresh enhancement is added, and so on. Yet, in them all we are dealing simply with capacities and actualities that lie within the individual psyche. These could not find an outlet if the stimulus of the community for sharing and passing on were not present. But this is also a common characteristic of all altruistic impulses and feelings, which can only find expression if a community is presupposed, but which no one would therefore place in a separate psychological category.

(*b*) Further, only mental capacities and activities themselves and the rules governing their effects, can strictly be admitted as the subject of psychology, but not, in addition, the details of their achievements and content. Thus, in a community psychology, if the term is to be strictly interpreted, the capacity for creation, acceptance and communication of particular ideas may enter, but the material content of the apperceptions, of what is imagined, which is continued in myth, saga and ritual, could not be included, and we should have to dispense with all examination of types of belief in the soul, of classes of fairy tales and myths, etc., which so greatly enrich Wundt's work. Imagination and belief are psychological, but what is imagined or believed is not.

(*c*) Finally, if we are enquiring into community achievement and production, the most important task is to discover and examine those factors which alone make their development possible,—namely, the forms, motives, channels and methods of *transferring* the material of mythological fantasy.

What is the force that compels men to communicate the results of imagination? What is it that causes mythical forms to endure, and not only to endure but to gain the prodigious power which they exercise over the thought of milleniums? More especially, what is the process by which they are preserved and continued throughout successive generations? These things have not yet been brought to light and examined, yet only when we know them shall we know what is "this community" whose psychology we are attempting to build up. For the development of myth it is important to study the life of a group through a period of years and the nature of the transmission of group life to the following generations. Occasional and unregulated contact of the older with the younger members of the community does not lead to the development of that relationship in which Wundt's forces of evolution—"heterogony of purpose, change of motive and creative synthesis"—would be possible. This can only happen when there are definite forms of tradition with its links, protagonists and methods apart from the ordinary group life. Even the simple inheritance of fairy stories only arises when there is some kind of technique, a routine, a circle of people who know how to tell stories and who are collecting, preserving and expanding them. Myths are not the concern of everybody and anybody, and we shall only really understand their actual importance when we know the medium by which they pass from generation to generation, and the nature and purpose of those means of transmission. Even here there are the experts distinct from the group, elaborate initiations into the subject-matter of myths and primitive speculation, relationships between teachers and pupils, names and genealogies of teachers and authorities.

But my principal objection is to Wundt's point of departure, and his belief that research into the origin of religion is chiefly concerned with conceptual notions, for instance, with ideas of the soul and of spirits, and even of the gods, instead of beginning with certain elementary, typical experiences. This applies to experiences which do not of necessity belong to the sphere of myth, *e.g.* experiences of alienation. Because people distinguish "a second self" from their ordinary selves, it is not necessary to presuppose that there must have been at an earlier age, and passing through a long period of development, a fanciful conception of a "soul," which can separate from the body (or more correctly from the ordinary, everyday ego), but just the

reverse, a psychical experience is presumed, namely, the experience of alienation, to which later interpretations may or may not be given. The fright experienced on a wide expanse of heath, in the mid-day glare of the open steppes, or in the terror of the night, does not presume some previous "conception" of a ghost or demon, but can be entirely spontaneous, and can acquire later the trappings of such conception, or can endure without objectifying the supposed cause of the fright. The Indian mystic's experience of unity does not presuppose a concrete conception, still less any idea of a soul, either animist or animatist. It precedes all conceptual forms and is to be traced back to experiences which are more elementary and primitive, and perhaps also older, than any conception of soul or spirits, of Mana and Orenda. No "folk psychology" helps us to understand them: on the contrary, we can interpret them only through an intimate study of souls of the highest individual development, and of uniquely gifted people, which has not the slightest connection with Wundt's "mythological apperception."

(B) In Volume II., Wundt passes on to art, myth and religion. For him the ultimate source of all artistic creation as of all myth, religious feeling and conception, is fantasy. In myth, popular fantasy links together the separate data of experience in a particular order. (Does it merely *link* them together, and does not the peculiarity of mythical fantasy consist rather in the fact that it *changes* them, and introduces a wholly new strand of "wonder"?) In religion the popular fantasy produces from the content of such mythical connections its (imaginary or real?) conceptions of the ground and purpose of reality and of human existence.

(1) There follows, then, a close examination of the nature and effect of fantasy in general. It is stated here with great emphasis, that "no fantasy in the world can produce anything absolutely new, but can only repeat in a different order what has once been experienced." In the sphere of art, as in that of myth and of evolving religion, fantasy is particularly active in two ways. In the first place, it is active by *Einfühlung* or by "animating apperception," through which man projects himself into the object, so that he feels himself one with it. He does not merely change the object by giving it vitality, but in it he himself becomes the object. This principle controls the life of the soul in all its states and changes. It vitalises the creations of art, it is palpable in the development of myth. It is to be found no less in

the religions which express its ideas in imaginative symbols developed with the aid of myth and poetry. In all these spheres the principle of animating apperception is active: "if not the same as the creative power of the spirit," yet so closely related that the two cannot be separated. In the second place, there is the principle of the power of illusion which rouses and heightens emotion. Imagination, while contemplating an object, adds its subjective factors to the objective ones (sees them into the object) and thus heightens (in imagination) the emotional value of the object. This principle is active at all stages: in the power of normal or of pathological illusion, as in the creative imagination of the artist and the receptive fantasy of one who becomes absorbed, with æsthetic enjoyment, in the contemplation of nature or of art. Finally, it is most powerfully revealed where the illusory feelings include the highest joy or the most fearful torture, of which the human heart is capable,—in myth and religion.

(2) The last statement is particularly surprising. If it were true, it would be the task of folk psychology to attack the "false dialectic" of the human spirit and penetrate the illusion, by which in æsthetic and religious development it sees only itself in things. The highest stage of evolution, religion itself, would then be merely the summit of such a "dialectic illusion." I do not think this was Wundt's view. In his metaphysic, in his doctrine of ideas, in which he so surprisingly and significantly finds a meeting-point with the philosophers of the older German Idealism,[1] the "transcendental ideas of religion" remain to him "unprovable," but retain throughout their claim to an objective validity. We encounter, here, a contradiction which seems to me to be closely connected with his principle of "creative synthesis and the heterogony of purpose," and which leads him to waver between a standpoint of "als ob" and that of an assured objective validity.

(3) Likewise, Wundt's starting-point seems to me both contestable and dogmatic. That "the ultimate source . . . is the capacity for fantasy" is dogmatically stated without any previous inductions. This sentence contradicts the nature of fantasy as it has been defined by Wundt. According to the view he had taken, it is not creative but only works

[1] Wundt, even in his terminology, uses the expressions of the Kantian doctrine of Ideas, but they do not end in "dialectic illusion." In this respect, he agrees with Fries, particularly as to the validity of the Idea without proof.

upon that which is given; if so, it can never be the real *source* of anything, but itself presupposes a source from which it draws the material for its task.[1] Here a very important work of psychological dissection in the complex of mythical and religious imagination would be necessary, in order to distinguish the true sources and the mutual reaction of source and fantasy upon one another, and this task seems to me more important as a preliminary to an examination of the nature of art, myth and religion, than the enunciation of the characteristics of fantasy.

Now, the sentence "through which man projects *himself* into the object" attempts somewhat late to repair the obvious lack. The "source" must be twofold: on the one hand, the outer given reality, and, on the other hand, the "self" that emotionally penetrates the object. But how and what of *myself* do I find in the rose which I know to be beautiful? What does the Battak project of himself into the vision of a smoking volcanoe, when he flies in fear and trembling from it, as "Sombaon," and at the same time reverences it? Certainly it signifies to him—not in clear conception but in confused feeling—something analogous to himself, *i.e.* as living; but in so far as he sees it thus he does not fear it. Fear enters in only as he perceives in it something that oversteps all analogy with himself and with all that he knows. It is not a sense of the projected self, but a feeling of being penetrated by something that is inexpressibly more than the self (anyad eva). Further, the real projection of self is not limited to the region of fantasy. When we recognise bodies moving of themselves about us as men and as animated by conscious souls, we do this, according to Wundt, by the same method of projection. In his opinion, soul or consciousness is never given to our perception from without, directly in immediate perception; I come to a knowledge of it, he says, only as I conceive human forms as

[1] The truth of this is indicated by Wundt's own example of spatial imagination (already discovered by Fries). The projection of a pyramid in a plane is possible to our imagination, either as a plane figure, or, if we wish, plastically, and this also in two ways, namely, as we see the one corner projecting out of the plane towards us or sinking back into the plane away from us. Here we are adding something to the objective perception which can only distinguish a two-dimensional object, namely, the extension of depth, and that is made possible by imagination. But this arbitrary action of imagination is by no means the source of the representation of the extension of depth. The imagination could do nothing here if we had not already the capacity for a three-dimensional view of space.

analogous to myself, and to my inward spiritual life. Should we call this action, in like manner, "fantasy"? If so, fantasy will become here an organ of knowledge! For it is not mere fantasy that round about me there are living men with souls, but truth. Then why is it different in the case of mythical apperception? It must be clearly laid down when, where, and in what measure I may rightly project myself, otherwise the territory of mere fantasy will be unlimited, and I shall not know where I have to deal only with mythical imaginings and where with true interpretation and knowledge of things by means of inward analogy and *a priori* grounds of knowledge.[1]

(C) The general imagination common to art and myth becomes in the creation of myth in particular "the myth-building fantasy." It is not different in essence but only in degree from the æsthetic and other forms of imagination. Its essence is vitalising and personifying apperception through which objects appear as living and personal beings (animatism). The process takes place by means of "transcendental apperception," that distinctive and basic quality of any conscious subject which constitutes its unity. This is transferred to the object and thereby the object is animated. The process is not prompted by any interest in a causal explanation as a primitive theory of certain outward manifestations, but arises immediately. Through yet wider associations of simple and unequivocal projections, there results in ever-increasing measure the complicated imagery of myth. Thus there arises, for example, the belief in the soul, first in the form of the breath-soul. The breath escaping from a dying man is seen in white clouds, and these become animated.[2] Following the laws of analogy this apperception of the breath-soul[3] is associated with similar conceptions, such as the wind and the clouds. Then, as the clouds in turn are conceived as living, these are associated further with the idea of birds in flight. The image of the bird is associated with that of ships, speeding away. So there arise the myths of the death bird, the soul ship, and,

[1] The last point would, for example, have immediate bearing on æsthetic judgment. It confronts everyone who undertakes an analysis without prejudice with the claim that the value of the thing is not projected into it by fantasy, but that it has as objective a value as the sensually perceptible qualities. The rose is beautiful even if no one sees it, and reasons must be advanced as to why we should mistrust this judgment and thus lay ourselves open to the charge of subjectivism.

[2] Are we to suppose then that our forefathers preferred to die in frosty weather?

[3] Because of the little clouds of breath.

finally, those numerous connections which unite belief in the soul with the sun myth.

(4) I must here object that to animate and personify is not in itself "mythological." When a child scolds a chair against which it has stumbled, or a primitive tribesman strikes the stone that falls on his foot, that is not mythology, and from this alone nothing mythical will result. Rather, the territory of mythical imagination, prior to æsthetic and other "projections of feeling," has something entirely specific to itself. If this element is lacking, no myths will result. The transformation of an animate into an inanimate object has nothing mythical about it unless there is an accompanying sense of something "aweful."[1] Where the latter enters in, we may assume that we are dealing also with an animated and psychic being, but unquestionably this latter assumption may just as well be lacking. Merely as such it has nothing to do with mythology. I accept my fellow men or animals as living creatures, but I do not, therefore, plunge into a "mythical" sphere. Similarly, the supposition that by an imitative act of analogy I can achieve results, would not belong to mythology but simply to the general rubric of human error, if it were not magic, that is, if the idea of a peculiar power was not connected with it, the strangeness of which cannot be described in conceptual terms, but which is to be distinguished as an astonished feeling of the "supernatural." For an understanding of religion and pre-religion we must begin with an analysis of feeling. This demand of Schleiermacher stands the test even of the attempt to throw light upon the origin and development of pre-religion, and forces itself irresistibly upon us. In face of it, the "personifying apperception" is an entirely secondary matter.

(D) In Part II., Chapter II., we are led into the colourful, fantastic world of mythical pre-religion: into the world of belief in the soul and of a primitive faith in spirits with their counterparts—a growing faith in magic and fetishism, worship of animals and the cult of ancestors, taboo, sacramental purification and the idea of expiation, the origin of sacrifice and asceticism, and, associated with them all, the conception of dæmons. The attempt to set up signposts in this overgrown wilderness, to search out and gather together from a thousand hiding-places those factors that are related, and resolve those that are overlaid by later developments into their simple constituents, to discover what is typical and to bring to light the obscure,—all this deserves our deepest

[1] Or, at least, of something uncanny.

gratitude. Yet this has been done in such an all-inclusive and finely sympathetic way that it is rather the achievement of ingenuity, sensitiveness and an aptitude for discovery than the result of a particular "group-psychological" method. The whole work is intended not as a history or a collection of data, but as an explanatory "psychology of phenomena." But its chief service lies in the fact that it is both so richly stored with material and has also become a *history* of evolution. For such a history does not consist in the heaping up of facts, but in a full and rightly ordered presentation of typical factors, coupled with the attempt to give an inner understanding and explanation of phenomena.

(1) The first simple starting-point of the whole mythical process, as already stated, is the dawn of an idea of the soul. This is twofold. We get firstly the conception of the body-soul. (*a*) Generally in the early stages, this is ascribed to the whole body. The original idea of a soul which after death continues as latent in the body is found here. The dead person is conceived by mythological apperception as "alive," *i.e.* as still, though in a lesser degree, feeling, hearing, seeing, desiring. From this develop the manifold forms of the care of the dead, which is in the first instance related to the corpse itself. (*b*) We get the idea branching off that life, soul and soul-power, cleave to particular parts of the body ("the soul of the organs," "seat of the soul"). From the practice of appropriating such souls and their power by means of these members, arise primitive medicine, magic, the application of blood and spittle, the hunt for relics, cannibalism, etc. (*c*) This "body-soul" seems to me to be an arbitrarily introduced conception. It is obvious that here the mythical ideas are not of an animistic but of a "manistic"[1] nature, and that both animism and "manism" avoid the main problem. Primitive man does not mean a soul of the body, but the man himself and his powers, and particularly the dead man in his mysterious and terror-striking appearance, weird and dire, making my flesh creep and my hair stand on end. Such emotional reactions cannot be effected because I project "myself" into the object or because it is filled with mana. They presuppose a strange, crude feeling of the mysterious in all its tremendum, which is overlooked both by animists and "manists." Primitive man appropriates the corpse or parts of it, and eats them, or in some other way makes them his own, not as he eats muscles, fish, or herbs, but with an accompanying feeling of "the

[1] Manistic from mana = Orenda.

weird "—a sense of the magical, of the unknown and supernatural. Such primitive mysticism has not gradually developed from an origin which can be explained as an act of medicinal or natural appropriation, but it has evolved because the feeling of numinous awe clings to the life-power and the bones of the dead (which I have tried to analyse in *The Idea of the Holy*). Thence arise in the first place all the manipulations of the corpse. But what is this awe, this feeling of the uncanny and the supernatural, of a dæmonic power? How does it come to pass that it is dependent on these strange things and snared in these notions, through which it is ever aroused anew and driven into the most astounding and varied activity? That is here the real problem.[1] (Compare Chapter XV. of *The Idea of the Holy*.)

(2) Quite different from the body-soul is the soul perceived as psyche. It develops as breath-soul through the animating apperception of the breath which leaves the body at death, and as "shadow-soul" (shadow = the shade in the form of a person) seen principally in apparitions and dream-visions. The conception of spirits arises from the combination of the two.

(*a*) Let me deal first with the breath-soul. Through numberless associations this leads to ideas of soul incarnation, transference into the bodies of descendants, and, on the other hand, where fear is aroused, to banning and hunting the soul, rendering it innocuous, shutting it up in the corpse, as well as to its transfusion among the living. (Parallels: the blood-bond, etc.) The worm creeping from the decaying body is looked upon as a transformation of the body-soul, and through their similarity with the worm, the snake, the fish, the mouse, the rat, the toad, the lizard and the weasel, become by association "soul-creatures." In the same way the æthereal breath-soul is connected with flying creatures. Thus the animal world is brought into the mythical sphere, and is the basis of subsequent animal cults. By burial or cremation man tried to rid himself of the fearful being. Then through a "change of motive" there grows up the idea of a liberation and freeing of the psyche, and cremation becomes a sacred duty, whereby the psyche is spontaneously exalted. This conception of souls is, then, the starting-point for all notions of the incorporeal beings of myth, which pave the way for later ideas of the gods. In this evolution of ideas, in addition to mere association, the principle of epigenetic heterogony is at work: "What, from the point of

[1] How does the idea of "sacred" arise? This question is of more importance than all the rest.

view of psychological development, appears as a continual chain of mythological associations and apperceptions turns out, if we trace the course of motivation, to be a constant exemplification of that principle of spontaneity of purpose which is an expression of the creative nature of man's intellectual development."[1]

(*b*) I turn now to the shadow-soul. Dream images, visions, toxïc conditions, things seen in states of ecstasy, present themselves as æthereal images of the body. These gradually supersede the corporeal and breath souls, and thereby the conception of the soul in the form of animals. They assume more and more an exact resemblance to the living person, and gain, therefore, individual personality. Thus they cease to be indefinite ghosts. But the living also appear in dreams, even the individual himself.[2] So there arise the fantastic notions of a second self, of the far-wandering and distant vision of the soul, second sight,[3] and those forms of ecstatic possession[4] and prophecy in which the subject is conscious of another soul entering into him and speaking and working through him, and at the same time believes that he beholds it in dreams and waking visions. The orgiastic cults[5] are the lower forms which this conception takes: a rhythmic presentation in action or imitative movement, usually in conjunction with stimulants, which leads to conditions of hallucination, and whose technical experts are the "medicine man" and the "shaman."[6] Vision and ecstasy, however, intervene significantly in the evolution of the conception of soul, for in vision the sense of tangibility and of a common nature experienced in dream, disappear.[7] The visionary feels himself set free from the weight of the material body, and there develops the conception of the freeing of the self from material limitations. The "spiritual soul" here enters the field of consciousness, and

[1] If fantasy is indeed creative, then this creative heterogony is its work.

[2] What has this elementary factor to do with "animating apperception"?

[3] But this depends upon a specific disposition, not on soul-fantasy.

[4] But this psychopathological phenomenon is connected, not with an imaginary, but with an actual disposition to schizogony.

[5] But how can one explain the Orgiastic element?

[6] The actual "visions" of the medium, dependent upon a predisposition of the soul, and the no longer controversial mediumistic capacities, are quite overlooked.

[7] But how are the many characteristic feelings of expansion and immensity which the Yogin experiences to be explained? They have a very positive content which cannot be accounted for by mere anæsthesia.

the time is not far distant when man declares his body to be the wearisome prison which holds the soul in bondage. At the same time, a favoured class comes into being which is not dependent upon a high position in society: the seers, who possess the gift of holding intercourse with spirits,[1] and the magicians in whom the capacity of seeing into and foretelling the future becomes associated with a yet more important development, that of determining future events. At a higher stage we then get the miracle-worker, acting with the immediate help of the Godhead. In projection into the future, which accompanies the vision, we have an important source of the conception of life after death.

(*c*) This shadow-soul also calls for criticism. It is supposed to have arisen out of dream images. But, if so, it has nothing to do with "animating apperception." And in the visions of dream it is not a "soul" which appears, but the man or the animal itself. Neither to us nor to the savage do they come as shadows, as formless, fluttering figures, but as perfectly concrete people. At the same time what a strange idea of the "savage mind" is here revealed! Does not the savage make the distinction between dreaming and waking as clearly as we do, and in numberless instances say quite as simply as we, "I only dreamt that"? As children we accept the pictures mirrored in a pool as something real, but while still in childhood we pass beyond this belief. Where dream-images are taken seriously, always as a forerunner there is a conception of wholly other forms and states of existence, so that first, when and because the dream world is part of "another world," does it also become mythological. Here, again, the "conception of the soul" as such is not in itself the most interesting factor nor that which makes it of significance for religious history. It is interesting and important because it is accompanied throughout by that curious feeling of otherness, the sense not merely of the marvellous and terrible, but that spontaneous feeling for which we have no other name than the "supernatural," which we can and must seek out and mark in our own inmost selves. Only where this feeling is present do tales of spirits and ghosts become possible. The same is true regarding dreams when they are taken seriously as apparitions of "a

[1] The "seer" as such has no communication with spirits, but perceives things distant, secret, indwelling, past and future. His seerhood depends upon a natural disposition, which is a fact and not an outcrop of fantasy, and his bearing is that of a numinous person surrounded by feelings of numinous reverence, even where the conception of a numinous sphere is still quite undeveloped.

higher order." Here they enter the sphere of mythology, gain the possibility of surviving, and may develop into types to become a sure possession of tradition. Without this feeling they would not have come into existence, or if they had, would have vanished as they came. In the strangeness of the feeling itself, however, lies more than is expressed and clung to in fantastic imagery.

By the term "psyche" primitive man meant, not primarily a "soul" as distinct from man, but very naïvely the man himself, only as contemplated from within. And this faith is not an expression of fantasy, but of the simple feeling of self when we apprehend it aright. We do the same every day. Through his outward faculties man beholds himself in his bodily form, but with his inner sense he apprehends something different; this is unquestionably the case even at the crudest stage of experience. For even the most brutal savage knows what is pain, desire, sensation, thought, memory, appetite, will, and gives to each its name. So he already distinguishes as clearly as we do a something "psychic," even when he is not consciously contrasting it with the body. Is not that the basic assumption for Wundt himself? This "mythical apperception" consists in the fact that primitive man projects "himself," his own inner being, his life, will and even his "transcendental apperception," into the objects of the outer world. But then he must *know* something of this inner self that he projects. The interesting problem here is not how once upon a time the various notions of "shadows," "shemans," and the like arose, but to trace, firstly, how this feeling of self in its inward growth, gradually presses on to the conception that "we" are this indwelling life rather than that our body is the self, and, secondly, how the opinion develops that, when the body decays "we" somehow remain, and, thirdly, how this inner self, even in its connection with the body and to a heightened extent after separation therefrom, weaves the nimbus of magical powers, of the ghostly and supernatural, around itself. Yet, to explore these things, we must use other means than that of "folk psychology." If we have not the capacity to understand all this through our own experience, then no collection of ethnological facts will be of any use to us; they will be dumb if we cannot bring them to speak through our own sympathetic understanding. He who throws away this key is left with only arbitrary guesses or a forced interpretation of the facts.

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DR ROBERT EISLER ON THE BEGINNINGS OF CHRISTIANITY.

C. G. MONTEFIORE.

It would, perhaps, be no good sign of the religious condition of Europe if the steady flow of books about the Founder of Christianity, and about those brief writings, in which the story of his life and the record of his teachings are enshrined, were to cease. A stay of interest in the most influential of all figures of history and of all teachers of religion might betoken the victory of international Bolshevism or some other equally undesirable state of affairs. Meanwhile, we need, apparently, have little fear; the flow continues; the product is of all kinds and values. What follows in these pages has been suggested by another, and a very learned and original, attempt to delineate the life of Jesus, and to set it in its right framework in close relation with the general Jewish history of his age. I am not fit, and I do not intend, to review Dr Eisler's book. There has been a large number of such reviews and criticisms, mostly adverse and unfavourable, from writers both qualified and unqualified. I do not belong to the class of the qualified, and I do not want to add another to the criticisms of the unqualified. To review the book properly, to estimate its exact measure of truth and of value, would need a long and learned inquiry. Its main contentions are generally regarded as erroneous; its main hypotheses as untenable. I am inclined to believe that some of the censure and disagreement has gone too far, though with much of the disapproval I find myself in agreement. It is, however, only with a portion of the work that I shall, even cursorily and unlearnedly, deal in this place, and let it be said at once that such a procedure is very unfair to Dr Eisler. For he would wish, and the wish would surely be legitimate, that his book should be considered as a whole. For every bit

of it, every argument, illustration, hypothesis, are made to support all the other bits, arguments, illustrations, hypotheses; they all, he would urge, hang together. And, indeed, as immense reading and research have produced them, so much learning, as well, perhaps, as much sound judgment, must refute them, if refuted they can be. For myself, while not omitting criticisms, I propose to deal rather with one or two more general issues raised by, or contained in, Dr Eisler's book.

Any new view, more especially any view which traverses some prevailing and deeply held opinions concerning the life of Jesus and the nature of his teaching, is likely to provoke opposition. After all, the enormous majority of the students of the New Testament, as of the critics of Dr Eisler, are, in some degree or manner, Christian believers. With the best will in the world they cannot approach any book about Jesus with the same complete impartiality as they approach a book about Zoroaster or Buddha. Their minds are already made up before they open its pages. It is not, therefore, surprising that Dr Eisler's work has had, on the whole, a bad press, and met with wide condemnation. Moreover, in a book of 600 pages, and in the German original of 1,300, it is comparatively easy to pick out and fasten upon some of the most immediately strange, startling and unlikely statements and hold them up to ridicule. Nor can it be denied that some analogies and comparisons are drawn in the book which were incautious and undesirable and have aroused displeasure. I do not think, *e.g.*, that Dr Eisler really meant to compare the character of Jesus with the character of Mr Gandhi, and so far as he uses the words and actions of the latter to illustrate the words and actions of the former one must remember that in many continental circles Gandhi is regarded as a much more heroic, saintly and immaculate figure than he is regarded by many of us in England. It is pleasant to notice that all the more serious criticisms have cordially admitted the amazing industry and width of reading, the striking ingenuity and alertness, which have gone to the making of Dr Eisler's book. Nothing seems to escape his notice: magazine articles; novels (*e.g.* Arnold Bennett's *Clayhanger*); out of the way mediæval records; all provide some fish for his widely-sweeping net.

I wonder if he might have met with less condemnation had it not been for the fact that Dr Eisler is by birth a Jew. It has, perhaps, been thought, more especially in Germany, that his peculiar views about the life story of Jesus are partly

due to his Jewish origin, and conceivably to some dark Jewish interest and purpose. But such inferences would be erroneous. Eisler is very independent. If the book is read with care, it will be found that the author has a deep and sincere admiration for the character of Jesus, " this incomparably precious and fragile vessel of the Spirit " (p. 568). Moreover, he is free from some customary Jewish prejudices (as I consider them) in regard to the originality and far-reaching significance of the Founder's teaching (*cp.* Vol. II., p. 215, n. 5, and p. 230, n. 2, of the German original, the force of which is not impaired by p. 213, n. 2). Eisler's view of Jesus is curiously unlike Klausner's, that other Jewish writer, whose brief Hebrew life of Jesus, translated into English by Canon Danby, also shows much independence and a fine struggle, even if not always successful, to see the facts as they are. Where Klausner criticises Jesus, Eisler finds the criticisms devoid of fact, and yet just here, paradoxically, many Christian writers prefer Klausner, for though they hold that Klausner's criticisms are perverse, yet their very perversities are an acknowledgement of the usual Christian interpretation of the life and teaching of Jesus, while Eisler's book is a denial of it.

Most English readers, and even many English students, will, I suspect, confine themselves to the English translation of Eisler. It has been very well done under the author's direct supervision. It contains some things which are not in the German, *e.g.* Appendix XXV., for Dr Eisler is constantly adding to his reading, and keeps an open eye to all criticisms and reviews. Yet the shortened form of the translation does Eisler some injustice. With fewer trees it may be argued that one sees the wood more clearly ; yet all the elaborate footnotes and extras of the original form part of the completed structure. The student would be well advised to read the German *with* the English, though in parts of the work this is no easy proceeding, as there is a good deal of rearrangement. The German is sometimes more convincing and interesting than the English, and, sometimes, comparing one with the other makes one appreciate the author's meaning more fully. The number of misprints in the English (which I have noticed) is exceedingly small, and only in one or two places at most has the translator (as it seems to me) failed to render the German correctly. A few differences between the two may be deliberately intended by the author (*e.g.* p. 202, German, Vol. I., p. 298 ; p. 319, German, Vol. II., p. 173 ; p. 356, n. 9, German, Vol. II., p. 240, n. 1).

The presentation of the life and death of Jesus given by Eisler is not only opposed to a widely prevailing Christian view, but it is in antagonism to that view in a specially tender spot. It is opposed, more particularly, to the views of the majority of critical Lutheran theologians in Germany and of critical Christian scholars in this country. I do not mean that it would not be also opposed by more orthodox theologians, but, perhaps, it would, in a sense, be less objectionable to them inasmuch as they are further removed from *any* sort of critical rewriting of the life of Jesus or of *any* critical reinterpretation of the Gospels. For it has always seemed to me that, roughly speaking, the more Christian theologians are inclined to question the historic truth of certain miraculous narratives, the authenticity of certain select passages, in the Gospels, the more sensitive they become as to the *character* of the hero and of his teaching. They seem to become all the keener and the more vociferous to insist upon the immense unlikeness of his ethical and religious conceptions to those of his contemporaries, or indeed to those of all Jewish teachers whether before or since his time. He tends to become unrelated to the history and thought of his age: a sort of unmiraculous marvel. The more pronounced his difference from other Jews, the greater he appears to be. It has rather reluctantly to be admitted that he was born a Jew, but his ideals and his opinions were not Jewish. What does Jewish mean to these theologians and critics? Again, I speak roughly, and with some intentional exaggeration, when I say that Jewish means particularistic, national, political; it also means outward, legalistic, ceremonial-stressing. The religious conceptions of Jesus, on the other hand, are universal, broadly human, inward, prophetic, far from every political and national taint and limitation, non-legalistic, with no liking for ceremonial or ritual, indifferent or adverse to the institutional and the priestly. As regards the one half of these oppositions—the antagonism of Jesus to the legalistic, priestly, ceremonial elements of the Jewish religion of his time—I need say nothing. Eisler does not offend here. On the contrary. This aspect of the teaching he emphasises strongly, and even, perhaps, exaggerates. He quotes Jeremiah vii. 22 and viii. 18, and declares that:

> "on such a basis Jesus could adopt any simplification and modification of the law which seemed justifiable to his conscience, without infringing an iota of the

> 'genuine' law. From Jeremiah, and from him alone, he drew his 'authority' to declare in a single saying the abolition of the whole food-law: 'Not that which goeth into the mouth but that which cometh out of the mouth defileth the man'; more than that, to allow the seventy messengers, sent to the seventy gentile nations, to eat whatever food will be set before them" (p. 338, German, Vol. II., p. 207).

The English version has added the last sentence, and for "Prophets" in the German has substituted "Jeremiah." Nor need I speak about "particularism" and "universalism," for here too Eisler says things, and has views, which the Christian theologian would approve, though scarcely their justification in his somewhat uncritical use of the sources (*e.g.* p. 351, German, Vol. II., pp. 229, 230). But it is as regards the supposed national and political elements in the teaching and aspirations of Jesus that the antagonism between Eisler and his critics is chiefly displayed. Here we come at last to the core and contention of the whole book. For Jewish nationalism reaches its climax in the Jewish conception of the Messiah, and the very centre of Eisler's book is revealed in the first half of its (English) title: "the *Messiah* Jesus."

A reaction from, a dislike of, the supposed Jewish conception of the Messiah, has induced some few critics to go so far as to deny that Jesus ever claimed to be, or believed that he was, the Messiah. But if that extreme view is now generally abandoned, it is, nevertheless, maintained that the figure and nature of the Messiah as he conceived them, were wholly different from anything which had ever yet been pictured by any Jew. What, then, was the essence of the Jewish conception of the Messiah? Once more I shall slightly exaggerate. He was to be a national King who should deliver the Jews from foreign yoke (in the time of Jesus, the yoke of Rome), who should establish a grand Jewish kingdom, of which he should be the sovereign, while all the other nations of the world should be the tributaries and the subjects of the chosen people and of their king. To all such ideas Jesus was wholly opposed, and his conception of the Messiah was entirely free from them. Thus his conception and the Jewish conception were poles apart. The one was the antithesis of the other. His Messiahship is purely spiritual and religious: his Kingdom is an ethical kingdom in the hearts of men: it is inward and universalist. It was

to be inaugurated by a voluntary acceptance of suffering and death for the moral redemption of the world; it was to be, in a certain sense, fulfilled and completed by a resurrection as unique as the death, and in both the one and the other, as in the entire conception of its purpose and character, it is entirely un-Jewish and new. Jesus broke with and rejected Jewish nationalism: indeed, every sort of nationalism, as all politics, lay wholly outside his mission and the purview of his teaching. The idea of a suffering and dying Messiah was entirely alien to Jewish thought. Jesus, with the originality of genius, took the prophetic conception of the Suffering Servant, and used it for, and made it the basis of, his own daringly original conception of the Messiah. With worldly empires he had nothing to do: they did not touch him or concern him.

Now according to the Gospel of Mark, Jesus is reported to have inaugurated his public career by the categoric announcement: "the Kingdom of God is at hand." If, then, his teaching was wholly unpolitical, the consequence would seem to be that God's Kingdom could begin, and grow to its completion, independently of, and without rivalry with, and opposition to, ordinary, national and political kingdoms and empires. If there existed a mighty Roman Empire, and if the Jews, when Jesus lived and taught, were the subjects of that empire, such a condition of things might conceivably still obtain, while the Kingdom of God began and while it grew and matured: the two kingdoms had nothing to do with each other: the one is external, the other internal; the one material and human; the other spiritual and divine. It was at least conceivable that the growth of the Kingdom of God would be long and gradual, and that, during its growth, external conditions and the realm of the Cæsars might continue much as they were when the kingdom first began or was first announced. But such a conception of God's Kingdom and of God's Messiah was utterly opposed to anything which Jews had hitherto been taught, and which they most passionately desired. Even if, by God's own act, the empire of Rome was to fall, Jesus never intended himself to lift a finger, or that his followers should lift a finger, against Rome or Roman authority. His weapons, his ideals, his yearnings, were purely spiritual and religious. His yoke was a spiritual yoke; he was himself meek and gentle and mild and loving: he said "Resist not evil; love your enemies," yes, even the Roman rulers and oppressors.

Josephus mentions some false political "Messiahs" before and after Jesus taught and died; and after Josephus there was Bar Kochba, the leader of the appalling revolt some sixty or seventy years after the fall of Jerusalem. In their aims and religious conceptions, as in their actions, these men differed utterly from Jesus, who had no connection with them or relation to them. He stands alone; an isolated figure, apart; method, teaching and aim belong solely to him. They were for war. He is the Prince of Peace.

This presentation of Jesus is very sympathetic to those who want religion to be a leaven for righteousness and love and peace in and among the nations; to those who, as modern people, are out of tune with sudden catastrophes or supernatural interventions, who have a leaning towards quiet development, who like the notion of a seed growing by its own nature and internal force into a great tree; perhaps, also, to those, who, no excessive lovers of the Jews, would wish *their* Lord to have had as little as possible to do with Jewish revolts and Jewish nationalism, and with Jewish political yearnings for independence, empire, or world-domination.

As a brief example of the line taken by the theologians I am referring to, let me quote a few words from a recent interesting, if rather verbose, pamphlet on the Lord's Prayer by that excellent scholar, Paul Fiebig. On the words "Thy Kingdom come," he says:

> "Jesus has ejected all the political element which lay so close to Jewish thinking in the conception of the Kingdom of God. The prayer says nothing about anything political and national."

This view of Jesus, which I have here attempted to describe with some over-emphasis, and with the one-sidedness of brevity, has been of late somewhat shaken by the emergence of the "Apocalyptic" school of critics. By them Jesus is put into line, not indeed with leaders of revolt, but yet, to some extent, with those "apocalyptic" seers who announced, with passionate intensity and conviction, the near end of the existing order, a world change, a new age, a great catastrophe. Yet it may be said that the older, more peaceful view of Jesus has been able, with more or less success, to absorb the apocalyptic view, and still to continue its assertion of the non-national and non-political character of the teaching and the life of the Gospel hero. He believed, indeed, and proclaimed, the coming of the New Age, but he

stripped it of all Jewish narrowness, of all political sheen and colour. If, in the New Æon, the Roman Empire would have disappeared, there would be none the more on that account a *Jewish* empire and *Jewish* domination. The Kingdom of God will be human and egalitarian. If there is to be some sort of catastrophe, it will be God's doing and not man's, and God will work it in the interests of humanity at large and not of the Jews. Thus this semi-apocalyptic conception of the Kingdom is as non-national and non-political as the other. M. Maurice Goguel, for example, in his valuable and trenchant attack on Dr Eisler in the *Revue Historique*, 1929 (reprinted as a pamphlet in 1930), admits that the Roman Power—" comme d'ailleurs tout autre pouvoir politique "—is " destined to disappear in the Kingdom of God," but its disappearance and the disappearance of other political powers are only incidental. " Ce sont là, pour Jésus, des choses qui disparaitront d'elles-mêmes quand Dieu établira son règne ".[1]

Now comes Eisler and—but before we deal with him let us pause a moment, and ask ourselves, without considering the Gospel evidence one way or the other, and on the mere assumption that Jesus claims to be, or allowed himself to be regarded as, the Messiah, whether this curious lack of interest in the Roman domination presents no difficulty. His country is ruled by a foreigner : it is ruled (as his people think) oppressively ; the Messiah is, above everything, associated with independence and freedom and the overthrow of foreign rule ; Jesus claims to be the Deliverer ; he allows himself to be so regarded ; yet the Roman Power is only on a level with " tout autre pouvoir politique," and a matter of no special or peculiar interest. It will disappear, it is true, when the Kingdom is established, but not because it is founded " sur le principe de la domination." In fact questions about Rome are quite " en dehors de son enseignement." It may be so, and much in the Gospel story can be used to support M. Goguel's view, but it is certainly strange. Do we not, by lack of historic information, blind ourselves to the high degree of the strangeness ? Jesus claims to be the Messiah, the figure of all others most clearly connected with the independence and deliverance for which his people are yearning ; he allows his followers, some of whom at least are keen " nationalists " at heart, to regard him as the Messiah ; he allows himself, at a most critical time and place,

[1] On p. 629 Eisler speaks of a detailed reply to Goguel as going to appear in 1929 or 1930 in the *Revue Historique*. I could not find it there.

to be acclaimed as the Messiah, and yet the very things with which the Messiah is most associated in everybody else's mind are for him things of no interest or importance; the Jewish empire is a false expectation, and will not happen at all, while the disappearance of the Roman domination will just happen incidentally, as a secondary result of a much greater change. It *may* all be so, and perhaps so it was, but who can deny that it is very strange?

Well, then, now comes Eisler, and while maintaining, and even emphasising, the originality and distinctiveness of the teaching of Jesus, nevertheless seeks to put him into closer relation with the Jewish history of his time. Eisler attempts to make his brief public career one in a series of "revolts" (though Jesus wears his rebel's rue with a difference), to emphasise, at least in a measure, the nationalist and political character not so much of his teaching as of his actions and endeavours. To Eisler, Jesus is not *merely* a teacher; he wanted to *do* something: be it even at the cost of his life, he wanted, by a deliberate *action*, to introduce the Kingdom of God. And this Kingdom, which by God's help and by his own action he would usher in, would very definitely mean the cessation and overthrow of the Roman dominion, the dominion of pride, of cruelty and of oppression.[1]

But novel, and, in a sense, revolutionary, as Eisler's contentions are, one must not press (as some of his antagonists, *e.g.* M. Goguel, do) these novelties too far. There are many points of contact between them and the more usual views of Jesus' life and teaching, and it is unfair to lose sight of these, and to stress unduly the points of difference. While brought into relation with other Jewish "leaders of revolt," Jesus, nevertheless, in Eisler's view, towers above them, and from first to last differs from them more than he resembles them.

[1] The famous saying in Mark viii. 35 ("Whosoever would save his life shall lose it, etc.") repeated, with small variations, in four other places in the Synoptics, gives, perhaps, a measure of support to some theory of a Jesus who had resolved to "take action." For its frequent repetition argues for its authenticity. Yet Wellhausen, Klostermann, and others are most probably right in holding that the reference is to martyrdom: a voluntary giving up of life in this age and a receiving of the eternal life in the age to come. If, then, the saying be authentic, Jesus, on the usual interpretation of his career, must be thinking of the persecution which his followers will undergo after his own death. The saying will be connected with such passages as Mark xiii. 9–13, Matt. x. 17–22. But these passages are probably not authentic. May not, therefore, Jesus be referring to voluntary deaths to be undergone in connection with his own action in the very near future in Jerusalem?

Eisler's book, in its English dress, has for its full title: *The Messiah Jesus and John the Baptist, according to Flavius Josephus' recently rediscovered "Capture of Jerusalem" and other Jewish and Christian sources.* The more sensational part of his book is the utilisation (1) of what is said about Jesus in the old Slavonic translation of Josephus' *Jewish War* —a translation (as Eisler holds) of an earlier draft of that work, then called the *Capture of Jerusalem*, and (2) of certain late Christian documents and of passages in Church Fathers, also based upon Josephus, and (3) of certain Latin and Hebrew translations of Josephus, hitherto neglected or unknown.

Eisler's contention is that as the famous passage in the *Antiquities of Josephus* about Jesus is partly authentic and partly doctored by Christian hands, so, too, in the *Slavonic Josephus*, the passage about Jesus is partly genuine, and partly interpolated by Christian "editors." It is certainly not a mere late Jewish forgery. So too in the other late documents which Eisler uses: there is an underlying core, which, coming mainly from Josephus, or from old and trustworthy traditions, is of the utmost value, and there are detachable interpolations and alterations.

I cannot embark upon any discussions of the problem, which is highly complicated and difficult. I am inclined to think that Eisler's view of the passage in the *Antiquities* is probably correct, though possibly not in every detail, and that the passage in the *Capture* may also contain some genuine Josephus bits; the other passages, more especially the highly sensational description of the bodily appearance of Jesus, extracted from the *Letter of Lentulus*, seem to me more, or even considerably more, doubtful.

With these passages in mind, Eisler reviews the Gospel evidence, and he finds that this evidence, properly interpreted, fits in with, and is complementary and not antagonistic to, the evidence of these passages, and supports their authenticity. It is here, as I believe, that his argument breaks down: his interpretations of the Gospel evidence are often arbitrary: as a whole, they will not work, and, therefore, even if the passages are mainly authentic, the picture of the ministry and the career of Jesus which he draws fails to convince.

Dr Eisler's book contains a mass of material which I must leave entirely unnoticed. Many pages deal with John the Baptist, his true character and teaching, his place in the history of his time, the relations between him and Jesus.

Then, again, there is a long chronological argument; the date of the Crucifixion is placed in A.D. 21, instead of eight or nine years later, on the usual reckoning: the Baptist survives Jesus by fourteen years, and is not executed till A.D. 35. There is a long section dealing with the physical appearance of Jesus, the smallness of his stature, his scanty hair, his somewhat hunch-backed figure, and so on. Lastly, the whole history of the time is treated with some detail, and it is sought to put the action of Jesus at Jerusalem with its disastrous close into its place in the long sequence of revolts and Messianic enterprises both before him and after him. All these things I must leave untouched. And yet, as I have indicated, it is unfair to Eisler to do so. For all his positions, arguments and contentions hang together. Each one is connected with the other, and, in some sort, all support each, and each supports all.

Let us, now, for the moment assume that all that Eisler has discovered about Jesus, and assigned to Josephus, were established as authentic and genuine. Why is it of such great importance? Josephus is not earlier than Mark. Even that form of his *War* from which the Slavonic translation was made cannot be anterior to A.D. 72. Mark *may* have been issued before the Fall of Jerusalem; at any rate his sources are earlier. Q, or even Professor Bacon's "S," is also earlier than the *Capture*. Again, on Eisler's own showing and hypothesis, Josephus was strongly anti-Christian. Lastly, he was a consummate and a frequent liar, profoundly anxious to save his own skin, and to curry favour with the Emperor and the Roman authorities. If his view of Jesus differs in any way from that of Mark, is it not highly probable that this later view, the view of a Jew, who was hostile to the new Christian sect, and was an historian untrustworthy and unscrupulous when his own interests and prejudices were concerned, is of little or no value? Josephus only knew about Jesus from hearsay and from prejudiced Jewish reports: the Emperors were not favourable to Christianity. Are not, then, the statements of Josephus about Jesus, even if we have them, entirely negligible?

Eisler's reply is based upon another hypothesis elaborately argued and defended. And it is a characteristic of his book that the whole structure largely consists of a series of hypotheses, the first requiring the second, and the second the third. He asserts, then, that the statements of Josephus are trustworthy, because they go back to trustworthy sources, of

which the main and most important is nothing less than the report sent by Pilate to Tiberius of the arrest, trial and death of Jesus and of the occurrences which led up to them. Here, again, I cannot enter into the long and clever arguments about the authentic *Acta Pilati*, their promulgation and destruction, or about the *Records and Memoranda of Tiberius* among which the *Acta Pilati* were included. Even if these *Acta* existed and were preserved at Rome, exactly as Eisler asserts, two more hypotheses are required to make them of value as regards Jesus and Josephus. First, they must have included the report of the trial and the death. Here, Eisler is at pains to argue that Pilate would never have ventured to leave so important an incident unrecorded. But *was* it from the Roman point of view so important an incident, and *was* Pilate, as a matter of historic fact, always so anxious and careful to make and leave a record of his executions? Neither question is easy to answer in the affirmative. M. Goguel is rather happy in his criticisms on these particular points. Secondly, even if the *Acta* contained a report of the trial, would Josephus have been given permission to examine the Imperial Archives and to read this report? Those who have studied most deeply Roman provincial administration, and who can best judge about the licence and latitude allowed to imperial favourites at Rome, must give their verdict about the two hypotheses upon which Dr Eisler relies. As to the lucidity and brilliance with which he defends them there can be no question. And here again all his hypotheses hang together and fit in with his entire view. All the bits of his theory are like pieces of a jigsaw puzzle. The fact (in Eisler's eyes) that Jesus was not merely put to death by Pilate to please the Jewish leaders and Rabbis, who disliked his attacks upon them and his criticism of the Law, but that he was put to death because he was the initiator and head of a rebellious movement, which might easily have assumed large proportions, had it not been quickly nipped in the bud, make it, as he argues, very probable that Pilate *would* have reported about this movement and of its successful crushing to the Emperor. And the statements in the rediscovered *Josephus* indicate, in the first place, that the ending scenes of the career of Jesus were of a character which show them to have partaken of the nature of a rebellion, and in the second place, that they are taken from a trustworthy source which could only have been the official record of the event.

But, once again, assuming that the passage in the *Antiquities*, as cleansed by Eisler of Christian interpolations,

as well as the passages in the Slavonic translation of the *Capture* and in the *Letter of Lentulus*, as expurgated by Eisler, were all genuine, how far would they take us? (I omit the bodily appearance, and I have also to omit the passage from Suidas about Jesus in the sanctuary, p. 483 *seq.*) Let me transcribe the salient bits which are obviously of most importance.

First let me quote the reconstructed text of the *Antiquities* (p. 62):

> "Now about this time arose (an occasion for new disturbances) a certain Jesus, a wizard of a man, if indeed he may be called a man (who was the most monstrous of all men, whom his disciples call a son of God, as having done wonders such as no man hath ever yet done). . . . He was in fact a teacher of astonishing tricks to such men as accept the abnormal with delight. . . . And he seduced many Jews and many also of the Greek nation, and (was regarded by them as) the Messiah. . . . And when, on the indictment of the principal men among us, Pilate had sentenced him to the cross, still those who before had admired him did not cease (to rave). For it seemed to them that having been dead for three days, he had appeared to them alive again, as the divinely-inspired prophets had foretold—these and ten thousand other wonderful things—concerning him. And even now the race of those who are called 'Messianists' after him is not extinct."

And now for the salient bits of the passage in the *Capture* (p. 466):

> "At that time too [*i.e.* after an account of the uproar caused by the introduction of the Roman standards with their 'images' of the Emperor into Jerusalem] there appeared a certain man of magical power, if it is permissible to call him a man, whom certain Greeks call a son of God, but his disciples the true prophet, said to raise the dead and heal all diseases. . . . Everything whatsoever he wrought through some invisible power, he wrought through some word and a command. Some said of him, 'Our first lawgiver is risen again, and displays many healing and (magic) arts,' others that 'he is sent from God.' Howbeit in many things he disobeyed the Law and kept not the Sabbath according to (our) fathers' custom. Yet he himself did nothing shameful or high-handed, but by (his) word he prepared every-

thing. And many of the multitude followed after him and accepted his teaching, and many souls were excited, thinking that thereby the Jewish tribes might be freed from Roman hands. But it was his custom most (of the time) to abide over against the city on the Mount of Olives, and there too he bestowed his healings upon the people. And there assembled unto him of helpers one hundred and fifty and a multitude of the mob. Now when they saw his power, how that he accomplished whatsoever he would by a (magic) word, and when they had made known to him their will, that he should enter into the city, cut down the Roman troops and Pilate and rule over us, he disdained us not. And having all flocked into Jerusalem, they raised an uproar (against Pilate) uttering blasphemies alike against God and against Cæsar. . . . And when thereafter knowledge of it came to the Jewish leaders, they assembled together with the high priest and spake: 'We are powerless and too weak to withstand the Romans. But seeing that "the bow is bent," we will go and impart to Pilate what we have heard, and we shall be safe, lest he hear (of it) from others and we be robbed of our substance and ourselves slaughtered and the children (of Israel) dispersed.' And they went and imparted (the matter) to Pilate, and he sent and had many of the multitude slain. And he had that wonder-worker brought up, and after instituting an enquiry concerning him, he passed (this) sentence upon him: 'He is a malefactor, a rebel, a robber thirsting for the crown.' And they [*i.e.* the Romans] took him and crucified him, according to the custom of (their) fathers."

(The "bow is bent" is supposed to contain an allusion to Zechariah ix. 9–13 and Psalm xi. 2.)

It will be noticed that the passage speaks of the *followers* of Jesus and of some elements in the excited people as wishing and hoping that he would lead an attack upon the Romans. This does not go so very much further than the significant sentence in Luke (xxiv. 21): "We hoped that he it was who would deliver Israel." The only words about his own part in the affair are in the sentence:

> "When they had made known to him their will, that he should enter into the city, cut down the Roman troops and Pilate and rule over us, *he disdained us not.*"

These four words are all that Josephus (if it be he) says as to

Jesus being ready to satisfy the political desires of his followers. Moreover, it would appear that another MS. of the Slavonic text reads, "But he did not heed it," which I suppose would mean "He did not agree, or yield, to their desires" (p. 384, n. 18; p. 458, n. 3).

Thus, even according to the restored Josephus, the nationalist and political actions of Jesus are very uncertain, depending largely upon four words, which another MS. reads differently, while for the character, the teaching and the previous career of Jesus we are left entirely in the dark. With full justice does Dr Eisler say that without the Gospels "no one could form the slightest opinion of the character of Jesus or of his life previous to the final catastrophe" (p. 381, German, Vol. II., p. 291). The Josephus passages would by themselves carry Eisler but a very little way in his novel reconstruction of the ministry of Jesus: it is his manipulation of the Gospels which supplies three-quarters of his picture, and it is precisely this manipulation which seems to me the most dubious portion of the book. Three features are noticeable: (1) an occasional, and perhaps unwarranted, use of the Fourth Gospel, (2) an uncritical use of the Synoptics, with a neglect of commonly accepted critical conclusions, where to accept them would interfere with his (Eisler's) wishes, (3) a strange, and sometimes arbitrary, interpretation of many individual passages.

There is no positive harm done by these methods. After all the Gospel text remains, and it may well be that every imaginative reconstruction of the life of Jesus contains some grains of truth or suggestion, which are of value. But the fact is that the Gospels do not admit of any life of Jesus, or any story of his brief public career, being written with any confidence or conviction. Their evidence is conflicting.

In support of the *main* contention of Dr Eisler that Lessing's Reimarus was not wholly wrong, that Jesus did at least *hope* for a deliverance from the Roman yoke when "the kingdom," either before, or soon after, his death, should be established upon earth, that, therefore, there *was* a certain political, and even national, element in his expectations and desires, some general arguments can be adduced.

(1) The tendency in the Gospels as we have them to exonerate and whitewash the Romans.

(2) The tendency to make Jesus and his followers as harmless as possible.

(3) The tendency to blacken the Jews and to distinguish between their desires and those of the Christians.

(4) The tendency to make the teaching and actions of Jesus as anti-Jewish and as peaceful as possible.

(5) The greater value to be assigned to any opposite and contradictory indications and hints in the Gospels, just because of tendencies (1) to (4).

These indications and hints *can* all be explained away, but not quite satisfactorily. They do not substantiate Eisler's picture, but they do (as it seems to me) invalidate the picture of the wholly peaceful teacher who, though he claimed to be the Messiah, or let his followers and the populace acclaim him as such, hardly allowed the question of Rome and its yoke to rise into his consciousness, and ignored it in his teaching. "We hoped that he would deliver Israel." Deliver it from what? Surely from Rome and from the oppression of the foreigner. "The disciples were obtuse: they translated spiritual into material meanings." But why, then, were they not more fully enlightened? Why the assumption of the Messiahship? Why such playing with fire as the "Messianic" entry? Why such exercises of royal power as the cleansing of the Temple, so meagrely described in Mark xi. 15, 16? What lies behind the saying:

> "When the Son of Man shall sit on the throne of his glory, ye also shall sit upon twelve thrones, judging [more probably "ruling"] the twelve tribes of Israel"? (Matt. xix. 28).

Or is it a wonder that after the crowd had cried "Hosanna to the son of David,"—and there is a good deal to be said in favour of all that Eisler writes about the word "Hosanna,"—"all the city was stirred," all Jerusalem seethed with excitement? (Matt. xxi. 10). Why this agitation? Simply because of his moral teaching? Or because of his healings? Neither explanation is adequate. Nor are the sword passages easy to explain, Matt. x. 34, and Luke xxii. 35–38 still less. Of the latter passage no satisfactory interpretation has ever been given, whether by Professor Burkitt, or Johannes Weiss, or Loisy, or Pfleiderer or anybody. Yet Eisler, on the other hand, is not justified in his arbitrary rendering of its last dozen words (p. 369).

Here, perhaps, it may be noted that, in the endeavour to make the contrast between the Jewish conception of the Messiah and the spiritual conception of Jesus more glaring and picturesque, it is too customary to ignore the fact that this Jewish conception was not without its ethical and "spiritual" features. It may be that if Jesus's conception

is made a little *more* political and the Jewish conception a little less, the two need not have *so grossly* differed from one another. The authoritative picture of the Jewish Messiah is contained in Isaiah xi. 1–9. It is true that he slays the wicked "by the breath of his lips," yet, nevertheless, "righteousness is the girdle of his loins": "the spirit of the Lord rests upon him," which is "a spirit of wisdom"; the poor and the weak are his chief concern: in his days "the wolf shall dwell with the lamb, and the earth shall be full of the knowledge of the Lord as the waters cover the sea." And elsewhere it was written of him that he, the Messiah, should be the Prince of Peace, and that of the measure of peace under his rule there should be no end (Isaiah ix. 6, 7). Though the conversion of the gentiles is not mentioned in these two passages, it is predicted in others which were associated with his advent and his age, so that we may safely say that even the Jewish Messiah was not a figure *purely* political, national and objectionable.

Further, we have to remember that among the legalistic and nationalistic Rabbis, those dark foils to the splendour of the Founder, there were many, as Eisler himself allows, who were adverse to any hopeless attempt at revolt, but who yet believed in, and passionately desired, the not too distant overthrow of the Roman yoke by the act of God. Man was not to begin: God would begin: then might man join in.

These various considerations may justly lead us to suppose that the aspirations and even the actions of Jesus were of a more "nationalist" and political character than is commonly supposed, but how far would such a cautious and hesitating conclusion be from the picture which is presented to us by the large learning, and the daring ingenuity, of Dr Eisler!

We may pass over the hypothesis about his family, his "tribe," his early associates, and his baptism by, and his relations with, John. But a word must be said as to Eisler's use of the notoriously difficult passage, Matt. xi. 12, and of Jesus's laudation of the Baptist in xi. 11. He conceives that in Matt. xi. 12 Jesus is praising those who, by insurrections, had not long before sought to establish a national kingdom by violence, and that he extols the Baptist because he was the author "of the Zealotic activist movement for independence" (pp. 264, 319). This in itself seems very doubtful, and only with difficulty to be elicited from the two verses concerned, but it becomes the more remarkable when we come, soon after, to the sections in the book entitled "the Higher Righteousness" (pp. 335–344), in which Eisler makes

no attempt to disguise or minimise the pacifism of Jesus's earlier and general teaching, but, on the contrary, emphasises it. He preached non-resistance and the love of enemies. Moreover, these enemies, and the people to whom no resistance is to be offered, are precisely the Roman oppressors and the Roman soldiers (p. 241). "The Kingdom of God can be realised here and now" by human conduct. And we get a really ingenious and cogent defence of rendering the famous verse in Luke as "the kingdom of heaven is *within* you." Did then Jesus change his mind? Yes he did, but yet only partially and hesitatingly. He sends out two bodies of disciples, one of Twelve to the Jews, one of Seventy to the gentiles. They are to announce the nearness of the coming of the Kingdom, to preach repentance, to heal the sick. But the emissaries return: the kingdom is no nearer. Then Jesus accentuates his demands. There must be a complete renunciation of all possessions. "Sell that ye have," "deny yourselves," "take up your cross and follow me." Moreover, this demand is not for some only, or for an inner ring, but for all. And now Dr Eisler makes the most tremendous assumption of all. He conceives that Jesus came to the conclusion that the only way of inducing God to bring about the kingdom was to initiate, under his leadership, a new Exodus. For the contented endurance of the domination of the foreigner, even though that domination must not be opposed by force of arms, was yet a "grave infraction of the Deuteronomic law, 'Thou mayest not place a foreigner over thee, who is not thy brother'" (Deut. xvii. 15). The whole of the rest of the story of Jesus, as told by Dr Eisler, depends upon this assumption of the Galilean Teacher deciding and resolving upon an "Exodus" into the wilderness under himself as the second Moses, or under Peter. Eisler has practically no authority whatever for this assumption, whether inside the Gospels or without them. All that he has are the stories in Josephus of certain prophets and impostors who, "under the pretence of divine inspiration fortelling revolutionary changes," led the people into the desert, "under the belief that God would there give them tokens of deliverance" (p. 360, German II., p. 247 and p. 172, n. 3), and the use of the odd word "Exodus" in the story of the Transfiguration in Luke. "Behold, there talked with him two men, who were Moses and Elijah; who appeared in glory and spoke of his '*Exodus*' which he was about to accomplish in Jerusalem" (ix. 31). Now, was there ever so enormous and far-reaching an hypothesis built up on such slender foundations?

As to the word "Exodus," its use for death may be unusual and in this place strange (*cp.* 2 Peter i. 15), but is it not almost imperatively required by the context? And is not the meaning which Dr Eisler would give it almost impossibly unlikely? But our author must have *his* Exodus at any cost! The followers of Jesus accept the idea, though Peter regards the "march to the capital as both superfluous and fatal" (p. 373), Peter's opinion being extracted from the words in the Transfiguration story, "It is good for us to be here." Jesus now realises that the chances of his being able to carry out the Exodus without a struggle are exceedingly small. His call is to the people as a whole: the thing must be attempted at the Passover, at the appropriate season, and when the city was crowded with pilgrims; but surely the Jewish hierarchy and the Roman military authorities would seek to stop his plan. Reluctantly he allows, and even enjoins, his followers to arm themselves, *but only for self-defence.* And for himself he foresees arrest and death. He must die like the Suffering Servant; "a sin-offering and a ransom for his people" (p. 375). Peter shall escape, and lead disciples and followers into the wilderness, till he, Jesus, "resuscitated by God's mercy," would bring them back "into the land of promise" (p. 377).

I do not propose to follow the further details of the story to its tragic end. They must be read in Dr Eisler's own fascinating pages. The combinations and interpretations are ingenious, but arbitrary; they naturally make full use of all those words and incidents in the Gospel narrative, such as the Messianic Entry, the Cleansing of the Temple, the Inscription on the Cross, which point to Jesus having sought to be something more than a Teacher, to *do* something, and not merely to talk.

It may not be out of place to make a list (not by any means exhaustive) of the strained interpretations which Eisler gives to numerous verses in the Gospels. (1) Mark xv. 7 "in the insurrection," *i.e.* the movement provoked by Jesus himself. (2) Luke xxii. 38, "Two swords," *i.e.* "each of us has two daggers." (3) Luke xxii. 40, "in the same condemnation," *i.e.* we are all punished for the same crime, but we, against the order of the Master, actively attacked the enemy, and had "shed blood" (p. 511). (4) Matt. xvi. 17–19, "on this rock," and the explanation of the name Bar-jonah. (5) Matt. xi. 12, "The Kingdom of heaven suffers violence." (6) Matt. xi. 11, "The least in the kingdom," an allusion to Jesus's smallness of stature (p. 415, n. 7). (7) Matt. x. 38,

"Take his cross" (p. 356, n. 9, German, Vol. II., p. 240, n. 1). (8) Mark ix. 2, "he was transfigured" (p. 435). (9) Luke xiv. 31, "what King" etcetera (p. 342, n. 4). (10) Mark i. 17, "Fishers of men" (pp. 351–352). Ingenious, but very unlikely, in spite of Jeremiah xvi. 14, 16. No wonder that Dr Eisler complains that though he had given the true explanation of the words as early as 1912, no one, except Schweitzer, had paid any heed to it (German, II., p. 233, n. 7). (11) Luke xxii. 37, "He was reckoned with transgressors" (p. 370). (12) Luke xiii. 5, "Except ye repent" (pp. 502–506), and the explanation of the whole passage, 1–5 (pp. 500–510). (13) Luke iv. 23, "Heal thyself" (p. 416). (14) Mark xv. 8, "As he was wont to do unto them" (German, p. 468, n. 1). But, worst of all, I think, is (15) the attempt to get rid of the obvious meaning of the famous utterance in Mark xii. 17, "Render unto Cæsar." This saying, and the whole story which includes it, supply cogent arguments against Eisler's theory of any "political" intentions having entered into the teachings, actions and Messianic claims of Jesus. They are surely to be frankly acknowledged as one of the proofs which those who discount the evidence on the other side and explain it away, may justly rely on, and as justly emphasise. As I see things, one can only say that the Gospels do not speak with a single voice. But it is not permissible, I take it, to advocate so utterly unlikely an explanation as that given on p. 334: "Throw Cæsar's, *i.e.* Satan's, money down his throat, so that you may then be free to devote yourself wholly to the service of God," even though so great a name as that of Wagner can be adduced in its defence (p. 335, n. 5).

The "end of the matter"—though, in truth, not "all" but only a minute fragment of it "has been heard"—is, therefore, that Dr Eisler, in spite of all his wealth of learning and ingenuity, has not proved his case. Nevertheless, he has not, I think, left the story of Jesus exactly where he found it. It may be that the Slavonic Josephus, both in its other additions to the extant Greek and in what it tells us of Jesus and his death, may have more to be reckoned with than those who too hastily denounce its authenticity at present allow. It may be that the testimony in the *Antiquities* may have been more or less correctly purged of its interpolations, and that the purified text may also be due to the pen of the Jewish historian, though whence he got his statements is another story. And Dr Eisler has done much good service in calling attention anew to signs and indications in the Gospels themselves which, added to general considerations,

make it probable that the Messianic claim, the Messianic aspirations and the Messianic actions of Jesus were not so wholly anti-national and non-political as is commonly supposed. Perhaps, at the present moment, it is not possible, or, if possible, not safe, to go beyond what Wellhausen said in the second edition of his Introduction. Eisler did not fail to notice the passage,[1] but he omitted to score the point which he might well have made. For the passage marks an advance in the Eisler direction over the first edition, just as the Introduction in the first edition makes a certain advance in the same direction over the Commentary. This is the more remarkable as the advance is evidently made against the grain; the line taken is opposed to all Wellhausen's prejudices, and is more or less forced out of him by his exegetical and historical conscience. One can notice in the passage a certain hesitation and even inconsistency. The last sentences are hardly in accordance with the earlier ones: in these the Wellhausen of 1905 and before seems apparent; later on, the Wellhausen of 1911 has to speak with honesty and pain.

"He [Jesus] must have given his enemies some tangible excuse for the charge brought against him before Pilate. It is true that he did not plan a rebellion against the Romans: he did not intend to free his people from the yoke of the foreigner. But he did want to free them from the yoke of the Hierarchy and the Law. For this end he, perhaps, assumed the rôle, not merely of Teacher, but of Agitator, and made for himself, in internal affairs, the claim of Messianic authority and rule. Or, at least, he gave the appearance as if he did so. At the cleansing of the Temple he did not scruple to use force: his disciples possessed arms, and when they were surprised, they tried to fight. These traces are still preserved in the Gospel narrative: others may have been erased. Up to a certain point, Reimarus may be right. "Bis zu einem gewissen Grade könnte Reimarus Recht haben." And Reimarus, the eighteenth century critic (still worth reading), was the great advocate of the "political" and "national" character of the ministry and aspirations of Jesus. That is, perhaps, the last word. "Up to a certain point Reimarus may be right." Up to what point is hard to say. But, pretty certainly, not up to the point of Eisler.

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[1] German, Vol. I., p. 11. But the reference (p. 83) does not apply to the edition of 1905 (as stated in n. 3), but only to the second edition of 1911.

THE PARALLEL BETWEEN RELIGION AND ART.

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In the mind and work of William Blake, we who are able to read the signs of mental and spiritual life can feel that to him religion and art were not merely parallel, but were identical. The flame of his ardent devotion fused the two together, and he had neither the power nor the will to separate them. This conviction is not only an exaggeration, it is a definite impossibility, and yet there is a hint of truth in his belief we may do well to study.

To many among us, indeed to all who appreciate art, who enter in even the least degree within the magic circle of its lovers, the parallelism of the working of religion and art becomes evident, and to the genius it must ever be present as a real working power in life. In both regions the penetrating forces of reason and argument do not carry all before them, as they so rightly do in other kinds of discovery, such as science or history; they do not pronounce the "Endurtheil," the final decision, but are subservient and secondary. It is a judgment of emotion, an intuition, a mystic certainty that takes the first place. Dim and intermittent it may well be, beset with a thousand difficulties, and unable to give a clear and logical account of itself; and yet this immediate sense, this conviction that waits for the corroborative testimony of no man, this certainty which can brave the opposition of the rest of the world, this, whatever happens, remains the guiding light.

There is a rational basis to both religion and art to which we must give our attention or we have no secure foundation. The intellect and the memory must do their work. In art this basis is obvious, for there is perspective to learn, and

muscular anatomy, and other minor matters; but even as perspective is not art, so is rational thought not religion. Indeed, in so different a sphere do these human faculties move, that they may come into collision, and the assiduous and accurate learning of the rational side may, at any rate for a time, clip the wings of the true and beautiful living being that dwells in the centre of the region of art, and likewise in the region of religion. Experience teaches us, I think, that in either case there is for a season a phase of weariness, a sense of the lack of inspiration, that has to be passed through before we can attempt to scale the steep path which leads to "the shining table-lands," that even from the very first have beckoned to us as the one aim worth living for, the very goal of desire. Learning there must be in the early days, cramped and toilsome and painstaking learning, where the child-soul is under authority, and the repressive side is necessarily foremost, and "You are wrong" is more often heard than "You are right." The eye must be taught to see and the memory to retain; the hand must learn to be obedient to the eye, and the will must be incisive and clear in its action. Both religion and art must in the very elementary stages be learned as everything else is learned, by accepting guidance and judgment from the wisdom of our superiors, generally a wearisome process, even though with glimpses of reality and beauty and happiness shining here and there through the labour.

But there comes a day, a wonderful day, when all these precepts are transcended and become luminous, shining by their own unborrowed light. We enter on an inheritance which is all our own. All further help and guidance is welcome as encouraging and auxiliary, but can no longer be supremely authoritative, because we have seen the underlying realities with our own eyes. There is still almost everything to learn, and yet when we have once caught a glimpse of the truth, we feel that we can work from it as a basic principle and towards it as a noble aim, without help from others. In art there are words about "values," and "breadth of treatment," which at fourteen were humbly accepted, but now, at seventeen, flash on our eyes and heart as a key to the appearance of all outer objects; the selective instinct now asserts itself, in even the smallest detail or the most rapid line. When this point is crossed, we begin to have the freedom of the vast region of art.

If we turn to religion, we shall see a parallel process of far more emphatic worth, for while but a minority enter the

circle of originative art, we all have to be experts in conduct. The demand for mental and moral action never rests and never lingers, and while all else is optional, this alone is imperative. Here, thank Heaven, we are not born in isolation, but are accepted in infancy into the outer boundary and circle of the Church of Christ, and all the years of immaturity are under tutors and governors, who give us lessons of unquestioned authority on matters of faith, and show us the value of its practical result in right action. These precepts, even while accepted with due attention and reverence, remain but passive in the mind and memory, until the day comes when we make discoveries all our own. There may be a sudden crisis, there may be a gradual development, but all that we know is that "whereas I was blind, now I see." Then there begins to shine upon us "the light that never was on land or sea," and all we have patiently learned from others either falls off as insignificant, or is irradiated with a truth and a vitality never known before. Conduct is at once implicated, for all the scattered impulses and motives are gathered up into a new centre. The positive and originative sides of our desire to do the best with our lives are now able to come forward, and though, as in art, the mistakes made may be many, though our shortcomings may bring to us sorrows and disappointments such as are unknown to those who are content to stand outside the circle of light, nothing would induce us to retrace our steps. It is in fact impossible, for that which we have once seen we cannot un-see, and the answer to the riddle once given, we cannot be puzzled by it a second time. Moreover, a glance at the Ideal before us, a sense of the Power within us, prevent our sinking into despair, so full of endless hope is the vision, so unlike anything in our previous experience.

The immediate recognition in the world of men of that which displays true art is surely a wonderful thing. From a handful of rough clay to the fine stroke of the etcher's needle, from the smooth and bare curve of a Greek vase to the presentment of the human face divine, we know without being told when the inner spirit of man has as it were mingled with the solid material, and mentally we class all these things together as art. Under the utmost diversity there is one point in common throughout, a point almost beyond explanation in words, for on this, not the intellect, but the perceptions and the heart of man alone can pronounce judgment. One rule here is imperative, and that is that the material must not draw attention to itself. It is

very hard to press gold and diamonds and sapphires into the service of art, but the poor ball of clay which has been pinched by the fingers of Michael Angelo may show the sign unmistakable and be treasured for centuries. And it is the same in religion. We may meet with the divine signature, we may see the "exquisite class-mark" here and there on the wrinkled face of the old cottage woman, and hear it in the uncultured tones of the poor and lowly. It is the touch of the supreme Artist recognised on coarse material, that touch which groups us all together as members of one family, whether in heaven or on earth, a tie the reality of which no human judgment can invalidate.

We sometimes hear it said that everything with which the human mind can deal comes under the dominion of evolution, a progress from the elemental and imperfect, toward the complete and the perfect. This is true of nearly all our studies. Born in the province of biology, evolution has extended its rule to history, language, psychology and ethics, and almost all else, and in our day we do not count that we know anything aright unless we know it in its immature stages. And yet there are a few things that do not follow this stringent rule, and among these are the secrets of both art and religion. In each it is true there are crude and archaic attempts, but how came it that about 2,300 years ago art suddenly burst into flower and created a standard which no subsequent efforts can surpass? When we look at the frieze of the Parthenon or the Venus of Milo, we feel there is something here to be accounted for, something above the level of ordinary human endeavour. We are carried beyond the bounds of reason, where words carefully chosen clear and strengthen and yet limit thought, into the regions of intuition, where words fail us, and we feel a conviction, a rapture, rather than consider and weigh and think.

And what can we say of religion? This wonderful expansion of art into a blossoming time unknown before is but a faint and dim parallel of that which happened in our human history some nineteen centuries ago. Then, out of smouldering ashes, out of a creed politically dead and only guarded and cherished in a few quiet and faithful hearts, there sprang a flame that has proved to be the Light of the World ever since. There indeed is a vision which cannot be accounted for by the steady onward flow of the river of history, a leap upward into perfection, an opening of the door into the abiding and the eternal. Here is an unrivalled

fact. It is only a flash, a very short space according to our count of the years of human history, and yet it gives us a glimpse into the " eternal, immortal, invisible " that changes the whole of life. That this vision is not the product of the imagination only, is proved by the fact of it bringing with it a practical outcome, enlisting the desires and the will in the service of the Good, making them strong to bear and patient to pursue. Amid the difficulties and disappointments of life on earth a hope is born, a conviction that this divine power is able to attain to heights unknown, to make of the poor material supplied it something beautiful beyond our present power of thought, and finally to " present us faultless before the presence of His glory with exceeding joy."

If we return in thought to the realm of art we shall see that the parallel here is almost exact. There are a large number of rules to be kept, some of them minute and yet stringent, and, at one time, intelligence was alert and active in the assimilation of these rules, and so was also the will in endeavouring to apply them to practice. Now, however, conscious intelligence is quiescent and almost asleep, and a feeling, a perception that may have been trained in its school, but is now independent, does the work instead, and that with more swift precision. There is, says Ruskin, " an obedience, so universal, so subtle, and so glorious, that nothing but the heart can keep it," and when we reach this level, rules are observed without effort, which once we practised with reluctant toil. More than this ; the increase of experience becomes an added freedom, until, as St Bernard says, we bear " the kind of burden that sails are to a ship, and that wings are to a bird," a burden that, having once known, it is not possible voluntarily to resign.

Nature presents to us a varied multiplicity, a call in many directions at once, but all this must be pressed and strained as it were through the meshes of the Ideal within us ; the good, the true and the strong must be gathered into the work before us, and the bad, the frivolous and the misleading cast away without hesitation. The result is then poured out again in a selective simplicity, a simplicity that is not poverty and weakness, but grandeur, a selection that catches and fastens down the very heart of the matter, and lets all else pass by unheeded and unrecorded. Life presents to us the same multiplicity of interests, and religion deals with the many-coloured and attractive regions in much the same way, bringing down the desires to a simplicity of aim that can say, " This one thing I do." And yet this condition is not one of

narrowness or harshness, but one of expansion into a whole world of beauty. This spirit gives cheerfully because it has so much to give, it transcends the rules of ethics and yet keeps them every one, it is so inventive, so beautiful, that even a few lines drawn by its hand are of more value than huge efforts of denuding life of its varied interests, even of "giving our bodies to be burned." "There are no Geheimnisse in religion," says Harnack, nothing that is not equally open to every member of the human race, "but there are many Heimlichkeiten," many points in it which are almost beyond our telling in words. A parable, a symbol, an illustration, is a great help toward a right understanding of a difficult subject, and some among us rejoice to discover that the mystery of the inception and the course of true religion in the human soul finds a clear and beautiful parallel in art.

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GERRARD'S CROSS.

HISTORY AND THE HISTORICAL NOVEL

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An obvious ambiguity meets us on the threshold of our subject. By "history" we may mean one of two things. We may mean either the record, in writing or speech, of past events, or the events themselves—as, for instance, when we say that "the history of such and such a people (or movement, or country) is absolutely unknown." Of the absolutely unknown there can be, of course, little to be said.

We are concerned here, then, with History as the record of events which have happened, or are at least supposed to have happened. But it will be my endeavour to show, that not every record of past events is entitled to the dignified name of History; and, therefore, I must attempt some definition of what I conceive History to be.

The making of definitions is a useful mental exercise; but, like some physical exercises, intended to produce physical virtues, it is, perhaps, best conducted in private. And so I offer, as the result of my private meditations, the suggestion that History is the record of the life of a community, based on facts, or, at least, what are believed to be facts, from the evidence to hand. We do not call the description of a static condition, History; for life is not a being, but a becoming. Nor do we call the record of the life of an individual, History; we call it Biography. And though, as Carlyle has well observed, History is "the essence of innumerable biographies," it is the essence of the biographies, not the biographies themselves. But, when I say that History is a record of the life of a *community*, I do not mean only a nation, but, it may be, a Church, a movement, or even a civilisation—any collection of human beings in

which the interplay of mutual action creates what we call a "community."

Now, one very interesting point meets us at an early stage of our inquiry, viz. that, according to the high authority of the New English Dictionary, the use of the word "History" in England was, until the end of the fifteenth century or thereabouts, not confined to records of facts or events believed to be true. The word "History" covered indiscriminately History as we understand it, and what we now call Fiction—*i.e.* stories which were known largely to be works of the imagination. For example, what we now call the "Fables of Aesop" were by some writers spoken of as the "Histories of Aesop." This is, of course, merely an example of thought specialisation, a process by which one comprehensive notion, formerly expressed by a single word, is split up into two more or less distinct notions, one of which retains the old comprehensive name. That kind of process is, as every student of physical science knows, not by any means confined to words, but is the key to the great principle which we call "evolution." Therefore, there is nothing singular in the fact that it took place with regard to the notion, or concept, of History; and we may also observe, that the date at which it occurred coincided somewhat closely with the invention of printing, or, rather, with the great fall in the price of paper which made possible an enormous multiplication of printed records. This fact is suggestive; but I do not propose to dwell upon it. I only wish to point out, that our sharp distinction between History and Fiction is comparatively modern, and that there is a root connection between the two things. It is at least possible to suggest here, that it may ultimately prove to be the business of the historian to re-unite these long-divided partners.

At present, however, we start with the assumption that, according to modern notions, History is a record of facts or events. We naturally, therefore, turn to a consideration of the evidence which the historian uses to ascertain his facts.

Every self-respecting historian of a long-established nation now begins with the Stone Age; and here, of course, his chief evidence is what we call "archæological." Personally, I think the name unfortunate; for it seems, for example, absurd to use the same word to cover the brilliant field-work by which the late Professor Haverfield reconstructed for us the vanished but highly civilised age of Roman Britain, and the work of General Pitt-Rivers and E. B. Tylor in collecting and classifying the axes and arrow-

heads, the potsherds and the querns, of Primitive Man. If we speak of the use made by the historian describing seventeenth or eighteenth century England, of the surviving buildings and implements of that period, do we employ the word "archæological"? And, if not, why not? It is, in essence, the same kind of work as that performed by Sir Arthur Evans in Crete, by Schliemann in Asia Minor, and by Professor Haverfield in Britain.

This is, however, merely a question of terminology; and I will not waste time with it. Rather will I, in leaving this oldest kind of historical evidence, call attention to a very recent and remarkable addition to the technique of it, by which valuable results have already been achieved. One of the many discoveries of the Great War was, that objects invisible from a short height, by reason of obstructive matter, are readily visible from the great height attained by a flying machine. During the War, this discovery was applied to the detection of submerged submarines. Since the War, it has been applied, with brilliant success, to the discovery of the lay-outs of the villages and fields of an earlier civilisation, which have been buried beneath the accumulated material of succeeding occupants. As Maitland put it: "the barbarian . . . graved his will on the land." Unfortunately, the barbarian's manuscript has, by the imposition upon it of later wills, become a palimpsest; and Maitland, alas! did not live to see the magician whose wand could reveal the ancient text.

Next in order of date, in the evidence for the facts of History, come pictures.[1] Not only Macaulay's school-boy, but many less omniscient persons, have seen, or have seen reproductions of, that marvellous canvas known as the Bayeux Tapestry, which records, in colours almost as bright as they were in the eleventh century, the preparations for, and the conduct of, the Norman Conquest of England. Those who cannot visit the original would be well advised to get, or at least to study, one of the many excellent copies which photography has made so abundant and cheap. For it is a vivid masterpiece, which, strictly contemporary, records, as no words can do, the history of that fateful summer and autumn of the year 1066, pregnant with England's destiny. In this and similar records, no less than in the illuminations

[1] It may be that some day, the historian will have to reckon human speech as one of his sources; and, if so, it might come in here. But, at present, too little is known of the early stages of human speech to enable it to be used safely as evidence.

of missal and chronicle, in frescoes and friezes, stained-glass windows, even in the insignia of heraldry, is a wealth of material which no historian can safely neglect. Perhaps even more important, because the other records of the time are so scanty, are the cave-drawings and other pictorial fragments of ages infinitely more remote than the Norman Conquest of England, which the labours of excavators and explorers are constantly bringing to light. One of the most attractive examples is to be found in the sumptuous pages of the *Mélanges Diehl*, in the article [1] in which M. le Comte Lefebvure des Noëttes defends his thesis, that the discovery, by an unknown benefactor of mankind, of a new method of harnessing horses and oxen in the twelfth century, rapidly led to the disappearance of chattel-slavery from Western Europe. To this remarkable thesis further reference will be made later, in another connection. Here we note it only as illustrating the value of pictorial art in the study of History. Equally valuable are the Sumerian, Egyptian and Azilian clay- and rock-drawings discovered in recent times, which take us back even into the palæolithic age, and help us to discover what sort of creatures walked the earth in those far-off days.

Another early, though, perhaps, somewhat dangerous source of historical evidence, is that vast body of tradition which goes by the names of "legend," "folk-lore," and "myth." As is well known, this source of evidence can only be safely handled by trained experts; and dangers manifold lurk in the path of the amateur who dallies with it. Nevertheless, it is too valuable to be neglected by the serious student of History. For its worth lies in the fact, that it is the earliest effort of the people which conceives of it to realise its own experience, to pass from unconsciousness to self-consciousness. These traditions are the oldest subjective records of History, alike precious and dangerous. Naturally, they range from extreme simplicity to a high degree of elaborate technique. From the crude Alcheringa of the Australian aboriginal, with its accompaniment of mysterious rites, through the beautiful legends of the Maori tribes, collected so carefully by the late Sir George Grey; again through the stirring Eddas and Sagas of Scandinavia, and superb anonymous Scottish poems like *The Queen's Marie* and *Clerk Saunders;* to the sophisticated English prose

[1] *La système d'attelage du cheval et du bœuf à Byzance et les consequences de son emploi.* Paris: Ernst Leroux, 1930. Vol. I., pp. 183–190.

romances of George à Green, Robin Hood, and Thomas of Reading—they pass through stages like those by which the growing child manifests his gradual rise to complete self-consciousness. And how much light they throw on the character of their transmitters! The Maori story of the fish which was hooked by its tail is not fit for discussion in polite society; but it pictures the Maori chief, as his people understood him, as at least a thorough gentleman. Sir Walter Scott showed his unerring eye for history when he took Robin Hood as the ideal of English character. The delicious story in the *Saga of Burnt Njal* (made familiar to English readers by Sir George Dasent's translation), in which the key to a complicated lawsuit lay solely in the breast of the defendant, who, when appealed to by his opponents not to spoil sport by withholding it from his prosecutors, revealed it to his own destruction, is surely recognisable in the modern movement among his English congeners in favour of "brighter cricket."

Yet the trouble in all this kind of material is that it lacks a sense of proportion. It is apt to strike only the high lights, and leave the background unexplored. As a great scholar, Professor R. W. Chambers, has well remarked, in his learned edition of the early poem known as *Widsith*: "stated in bare annalistic form, the deeds of Shakespeare's noblest men, of Brutus, Hamlet, or Othello, would appear as the acts of a gang of gaol-birds." [1] In other words, the characters of the legend and the folk-tale are foreshortened on the canvas. They must not be accepted literally. Mention of the name of Shakespeare suggests that contemporary drama may also afford valuable evidence for the history of the period in which it was written: for seventeenth century England the Restoration Drama, and for the eighteenth century, Sheridan's and Goldsmith's plays. But it must be strictly contemporary drama. We cannot trust Shakespeare's account of the battle of Agincourt, fought a century and a half before his birth, or Schiller's dramatic pen on Wallenstein, who lived a similar time before him. Would that Shakespeare had served, as a young man of twenty-four, on board of Lord Howard's flagship, and thus been able to present us with a play on that epic fight with the Spanish Armada. What would we not give for a presentment of the Pilgrimage of Grace by a dramatist of genius who had taken part in that last protest of the Old England against the New? Still, these are vain regrets.

[1] *Widsith*. Ed. R. W. Chambers, p. 184.

It is a difficult question: how far the peculiarly individual and subjective art of music can be said to form part of this traditional body of historical evidence which we are now considering. Surely the scores of Tallis, Byrd, and Purcell tell us something of the sixteenth and seventeenth centuries in England, yes, and Charles Dibdin's songs of the eighteenth, just as Elgar's lovely *Wand of Youth* describes the spirit of Young England to-day far better than the grumblings and diatribes of the hysterical Press? And do we not feel that the Germany of the Aufklärung is made alive to us by the music of Schubert, and the French social life of the *ancien régime* by the delightful collection of old French *chansons et rondes* made by M. Widor?[1] Modern discoveries have, indeed, opened up further possibilities in this direction for the historian of the late nineteenth century and subsequent times; for who does not feel that he understands a Victorian audience the better for hearing the very tones of a great popular favourite of those days, such as Madame Patey, reproduced by the gramophone? On the whole, it would appear to be unwise in a historian to neglect entirely the evidence of music.

Last in order of what we may perhaps term the circumstantial, as opposed to the direct, evidence upon which the historian has to work, may be mentioned a source which has only of late years received adequate treatment, viz. the institutions of a country or people—the machinery by which a community gets its business done. And here a lawyer may, perhaps, be pardoned for using legal terms, when it is remembered, that to a great lawyer the initial impulse to study this new source of historical evidence was due. Sir Henry Maine, in his famous work on *Ancient Law*, published in 1861, showed, with the insight of genius, how legal institutions, in communities like the Roman Republic and medieval England, though but imperfectly reduced into written form and understandable only by a study of their working, throw a flood of light on the past of those communities, particularly on their social life. His brilliant example has been followed by scholars like Stokes, Vinogradoff, and Maitland in England, and others equally famous in other lands; so that no historian now, dealing with the periods of which they wrote, can safely neglect their work. He does so at his peril; and I have noticed a singular omission, due to this cause, from the works of English historians of repute, who, in estimating the safeguards which

[1] Paris: Plon Nourrit (n.d.).

protected the otherwise hapless medieval English serf, in the twelfth and thirteenth centuries, seem unaware of the powerful safeguard afforded by the fact that the serf, though in many respects pretty helpless against his lord, was protected, at least from murder and maiming, by the strong hand of the criminal law, enforced by the new and growing jurisdiction of the King's Courts of Justice.[1]

Lastly, we pass from the indirect to the direct evidence upon which the historian works, viz. the documents which deliberately profess to record the sayings and doings of the men and women who lived in the period with which he deals. Though not so difficult or so dangerous as the study of tradition, the handling of historical documents of course needs the utmost care; and whole sciences—epigraphy, numismatology, palæography generally—have grown up to assist it. But these are concerned mainly with the physics of the subject. When they have done their best, there still remains the most difficult problem of all, namely, to judge the proper amount of credence to be placed in a statement apparently authentic, contemporary, and perhaps uncontradicted, and yet suspected by the historian, through a sort of sixth sense developed by experience, to be untrustworthy. It has been said, that circumstantial evidence cannot lie, though it may be misunderstood. Alas! the same cannot be said for direct evidence. There is the well-known fact, that most great monastic houses in the Middle Ages kept an official who might not unfairly be described as a "forger in ordinary." In the respectable cases, the rules of the game were observed. It was not decent deliberately to forge a document which, you were aware, was wholly imaginary. But if you fully believed in the existence of an ancient charter which conferred a valuable estate on your abbey, but could not lay hands on it, and there was no Inspeximus to supply the lack, well, you took care that your abbey did not lose the case which a high-handed neighbour was bringing against it, to recover lands of which it had, as you believed, been in peaceful enjoyment for centuries. Somehow or another, that charter was forthcoming; and the experiences of the Great War suggest a similar origin for not a few modern diplomatic documents. Now, unfortunately, it is an elementary psychological truth, that most people believe firmly in the existence of things by which they expect to profit.

[1] See, for example, Professor Trevelyan's otherwise excellent study of "Lord and Villein" in his *History of England* (Longmans, 1926), pp. 147–152.

And the same warning applies to the influences of personal likes and dislikes, political prejudices, and religious feelings, upon documents. In other words, no document is necessarily true, not even an official document.

Another obvious, though less important, danger attendant on documentary evidence is the danger of mistranslation; for most historians have to deal with documents in a foreign tongue. There is the well-known, if apocryphal, story of the French scholar who came across, in an English document, the title "Bishop of Sodor and Man," and who translated it for the benefit of his fellow-countrymen as *L'evêque du siphon et de l'homme*. I do not vouch for that story; but I have found an error, almost as grotesque, and, perhaps, just now of some topical interest, in the very learned book of a great German historian, who, describing that process of Distress, or seizure of a debtor's goods by his creditor, which played so large a part in the life of medieval England, and which had, as one of its distinguishing features, the driving of distrained cattle into the village pound or enclosure, writes of the cattle being driven "into the pound sterling."

There is, however, a far deeper objection to a too great reliance upon the sufficiency of documentary evidence by the historian. A great French author, the late M. Fustel de Coulanges, whose classical work on the origins of contemporary France is, especially in the volume entitled *L'Alleu et Le Domaine Rural*,[1] mainly an attempt to disprove the Teutonic theory of communal ownership of land, professes to take account of *all* the documents affecting the subject; and his treatise is truly monumental. Yet, if one places it beside the equally monumental work of Dr August Meitzen,[2] on the land-settlement of medieval Europe, which is nearly contemporary, and which is based largely on the evidence of land-measurements and field-surveys, one is left with a haunting impression that M. Fustel's documents do not tell the whole story, and that, behind the framework of charters and statutes, affecting mainly the great landowners and the official classes, there may well have been, even in France, a numerous peasantry, to whom the art of writing was unknown, working out by traditions of immemorial antiquity those systems of common ownership and common ploughing which were the very essence of their laborious lives. And this view is confirmed by the vast body of indirect evidence, from Germany, England, and Scandinavia, which

[1] Paris: Hachette, 1889.

[2] *Siedelung und Agrarwesen*. Berlin: W. Hertz, 1895.

the labours of scholars have brought to light since M. Fustel's great work was written. The moral is, that the historian, to be worthy of his calling, must use all the sources of evidence at his disposal, and preserve a sense of proportion between them. But we must now pass from the materials of the historian to his methods.

Apart from that rather unsatisfactory and uninspiring type of History known as the annalistic or text-book type, the methods of writing History are in substance two; and great is the dust which the conflict between them has raised. These two methods of writing History are, the scientific (or analytical), and the literary (or synthetic), perhaps better called the philosophic, method.

The first may be described, briefly, as the method of Why's. A brilliant recent example is the work of Mr J. A. Williamson, *The Evolution of England*.[1] This remarkable book in effect starts with the assumption that the reader is acquainted with the facts of English history, as enumerated in those text-books of which I have spoken somewhat disrespectfully. It is not, I think, unfair to quote, as an example of their methods, a brief passage from one of them which must have been in repute a few years ago; for it reached its fourteenth edition in the year 1905. Presumably, this was the kind of thing which was inflicted upon English youth in the earliest years of the twentieth century:

> "Matters came to a head in 1051. In that year Eustace of Boulogne, who was returning from a visit to his brother-in-law Edward, marched into Dover as though it were a conquered town, and quartered his men on the inhabitants. The men of Dover resisted, and a fight followed, in which some of the strangers were slain. Edward called on Godwin, as Earl of Wessex, to punish the rioters. He refused, and Edward called on Leofric of Mercia and Seward of Northumbria to help him against Godwin. A meeting of the wise men was called, and Harold and Godwin were outlawed. Godwin went to Bruges in Flanders, Harold to Ireland, and Edith, the King's wife, was shut up in a monastery."

Compact, you will observe, complete with date, names, and places. But whether such a method is likely to inspire schoolboys with a love of History, is a little doubtful.

Mr Williamson assumes that this drudgery has already been undergone by his readers, and sets out to inquire, why,

[1] Oxford: Clarendon Press, 1931.

for example, these people with the strange names and titles were quarrelling in this obscure fashion in the England of the late eleventh century, and why, as the result of these quarrels, Edith, an apparently innocent lady, should be shut up in a monastery—or rather, he would have done so had he thought it worth while to deal with this trifling episode.

Some of the results of Mr Williamson's method are fascinating. A single example only can be given. It was one of the great facts of the fifteenth century, that the English and the Flemings, hitherto jealously excluded by the German Hanseatic League from the valuable Eastern trade, which then passed by the caravan routes of Asia and the rivers and roads of Eastern Europe to the Baltic sea, suddenly acquired an important share of that trade, and became such keen rivals of the Hansa merchants, that the latter suffered a blow from which they never recovered. Why was this? The answer is, that, for some unknown reason, the herring, by the sale of which the Hansa merchants had paid for their Oriental wares, suddenly left the Baltic for the North Sea, where they were caught in millions by English and Flemish fishermen, whose fellow-countrymen thus acquired the sinews of the trade. The motives of the herring are not stated; and it should be remembered that the cause of their sudden move is unknown.

To take one other example, from another author, I have alluded before; and it can be shortly stated. Why did chattel-slavery rapidly disappear from Western Europe in the twelfth century (being replaced by the much modified form of forced labour known as serfdom), while chattel-slavery lingered for centuries longer in the Byzantine Empire (equally Christian), and in Asia, the mother of Western civilisation? The answer is, says M. le Comte Lefebvure des Noëttes, in the work already referred to, because, in the early twelfth century, some unknown benefactor discovered that the method of harnessing horses and oxen, inherited from the ancient world, was wholly wrong, and replaced it by a better. To put it briefly, the *traction par la gorge* or throat-collar, previously in universal use for draught horses, had so stifled the poor beasts, that a pair of them could not drag a load of more than about 500 kilos, or, say, half a ton; while the equally old-fashioned horn-yoking of oxen, together with the fact that these were unshod, rendered them equally useless, at any rate on rough ground. As a consequence, when the Pharaohs had wished to build their vast pyramids, they had to employ thousands of human

slaves, whose superior intelligence and faculty of co-operation enabled them to move (under persuasion) the huge blocks of which the pyramids are composed. And so with the heavy work of the first ages of European civilisation. But, with the invention of the *collier d'épaules*, or traction by the shoulders, for horses and oxen, the difficulty disappeared, and the great Gothic cathedrals of the later Middle Ages could be built by free, or partially free, labour. Slavery became, in fact, no longer an economic proposition in Western Europe; and so disappeared.

Now, whether we agree or not with these explanations, they are extraordinarily interesting; and they stimulate the mind of the student of history to other inquiries on similar lines. But there may be observed about them a curious want of finality. Why did the herring leave the Baltic for the North Sea? Why did not the new *traction par les épaules* find its way at once into the Byzantine Empire and the East generally, where slavery remained a normal feature for many centuries later? Every "Why" leads to other "Why's." The scientific way of writing History, though it may not, perhaps, deserve the severe condemnation of a writer to whom I shall have immediately to refer—that "science teaches only conditions, not causes"—is still unsatisfying, because it raises as many problems as it solves, and, above all, because it cannot solve the problem of human personality. The scientific method may be valuable in what may be called "sectional history," *i.e.* the study of a single aspect of the life of a community—economic history, political history, military history; though, even here, the influence of personality cannot be ignored. But it cannot depict the soul and spirit with which, no less than a body, every true community is endowed. Nor must we neglect the serious warning of Professor Trevelyan,[1] that to use the term "scientific" of the methods of the historian, is to run the grave risk of suggesting a false analogy. For, as he truly says:

> "not only can no causal laws of universal application be discovered in so complex a subject (as History), but the interpretation of cause and effect of any one particular event cannot rightly be called 'scientific.' The collection of facts, the weighing of evidence as to what events happened, are in some sense scientific; but not so the discovery of the causes and effects of those events. In

[1] *Clio: A Muse.* Longmans, pp. 7–8.

dealing even with an affair of which the facts are so comparatively well known as those of the French Revolution, it is impossible accurately to examine the psychology of twenty-five million different persons, of whom—except a few hundreds or thousands—the lives and motives are buried in the black night of the utterly forgotten."

These are weighty words; and they lead naturally to our consideration of the alternative to scientific History, viz. literary or philosophic History, the method of which is synthesis. And here, instead of attempting to describe, in vague and general terms, the canons or principles of this art, I shall save time, and, I hope, make my meaning more clear, by giving a brief summary or synopsis of what I believe to be one of the most remarkable books which have been produced in the last decade on the history of any part of Great Britain, in this case the Principality of Wales in its earliest stages. And I have one very good excuse for doing so, in that I have not succeeded in discovering, after some inquiry, any single person (except myself) who has read the book, and only two who have even heard of it. I have read it three times, with ever-increasing interest, having discovered it, quite by chance, in the vaults of that excellent institution, the London Library.

A few words first as to its origin, which is interesting. In the year 1903, a French Catholic priest, Father Jacques Chevalier, a graduate of the University of Lyon (which Englishmen persist in calling "Lyons"), desiring to write a thesis for his doctorate, came to England to study the popular manifestations of Protestantism, as appearing in such phenomena as the "experience meetings" of the Wesleyan Methodist churches, and the services of the Salvation Army. With these he seems to have been disappointed; for he describes them, briefly but pointedly, as resembling "a clock which it is necessary to set every morning, because in the interval it will not go." Father Chevalier was, however, rescued from his disappointment by the advice of an Anglo-Catholic friend to proceed to Aberdare, in South Wales, where he found himself in the midst of the famous religious revival associated with the name of Evan Roberts, a miner. There Father Chevalier found himself also in an ideal position to complete his studies, which lasted from 1905 to the outbreak of the Great War, in which (though he is too modest to say so) he in fact served patriotically as a soldier

of France. Returning, after the Armistice, Father Chevalier plunged with ardour into the history of the people whose religious mentality had so fascinated him five years before; and not until the year 1922 did he complete his work.[1] Thus his book is the outcome of the labours of at least twelve years; and the merest glance at its pages, with their somewhat formidable lists of authorities and copious notes, is sufficient to convince a reader of the profundity of his studies. Moreover, a reading of his book very soon convinces us that, in addition to his immense industry, the author manifests a critical acumen, a philosophical outlook, and a sense of style which command our admiration. But now as to his method.

Here, again, I prefer not to dwell upon the Introduction to Father Chevalier's book, which contains a reasoned justification of his plan. There is a well-known story of a young man, recently appointed to a colonial judgeship, who called upon his patron to thank him for his job. "Well, good-bye, my boy," said the Minister, as he shook hands, "give your judgments, for they will probably be right; but do not give your reasons, for they will probably be wrong." So, instead of dwelling upon Father Chevalier's reasons for his method, we will consider briefly the method itself.

Beginning with a short account of the geography, climate, and other physical features of the Welsh peninsula, M. Chevalier points out that, contrary to the well-known aphorism of Sir John Seeley, "it is the land which divides, the sea which unites," the long seaboard of Wales, owing to the lack of unsilted harbours on its coasts,[2] for many centuries of its history, remained practically closed to immigration by sea, while the long range of mountains which makes its eastern boundary equally cut it off from the east while that east was in possession of a hostile force. Moreover, the peninsula itself, consisting of barren mountains and deep tortuous valleys, ill-suited for the development of agriculture and large towns,[3] prevented the natural growth of the economic progress so rapidly achieved by more favoured England. The consequence was that, until comparatively

[1] The title of the work is, unfortunately, the least attractive thing about it. It is called: *Essai sur la formation de la Nationalité et les Réveils Religieux au Pays de Galles des origines à la fin du sixième siècle.* Paris: Felix Alcan, 1923.

[2] The one exception is Pembroke; but its position, remote from the markets of southern England, made it unpopular till the development of shipping in the Napoleonic wars.

[3] Great industrial cities, such as Cardiff, Swansea, and Merthyr, with their appendages of dock towns, are, of course, as such, things of yesterday.

late in its history, Wales remained an isolated country of shepherds living remote in scattered mountain steadings, or, at most, in tiny hamlets.

The races, or rather (for M. Chevalier is, rightly, unwilling to use the dubious term " race "), the civilisations planted in the peninsula, begin with the dark-haired Iberian type, which is still so prevalent in Wales—swarthy, short of stature, with high cheek bones—which migrated, at some unknown date, from the Mediterranean basin, northwards across the Pyrenees, along the western coasts of France, across what is now the English Channel but was then dry land (part of the lost Atlantis), into Cornwall, Devon, and the western parts of Britain (probably also into Ireland), leaving indelible traces of its progress in the menhirs and dolmens of Brittany and the cromlechs and stone-circles of Avebury and Stonehenge. They were people of the Stone Age, of whose institutions little is known, but whose superstitions and nature-worship long survived in the famous organisation of the Druids, often, but erroneously, attributed to Keltic sources, and in the weird customs which appear, as subjects either of contempt or toleration, in the Keltic code of Howel the Good.

Upon this primeval foundation supervened in two, or, possibly, three waves of doubtful dates, somewhere between the tenth and second centuries before Christ, the civilisation which we call " Keltic," technically known as the *civilisation de La Tène*, from the shallows at the north end of Lake Neuchâtel, where some of its so-called " lake-dwellings " have been discovered. The first of the waves brought the people known as the Gaels or Goidels—technically as the " Q " Kelts (from certain speech peculiarities)—the second and third (the " Belgae "),[1] the Brythons or Britons, known technically as the " P " Kelts. These were all closely allied by speech and customs ; but while the earlier group were on their arrival living in the Bronze Age, the later had acquired the powerful aid of iron, of which their scythed chariots, which, however, proved to be of little use in Wales owing to the difficulties of the rocky surface, were a striking feature. These peoples came from Eastern Europe, up the Danube and the Rhine ; and the ancestors of some of them had taken part in the sack of Rome by Brennus in the year 390 B.C.

Apparently these invaders found most of what is now

[1] It seems to be a question whether the Belgæ of the third century before Christ were a distinct ethnic branch of the Brythons, or merely a detachment which had lingered behind in Gaul when their kinsmen invaded Britain.

England uninhabited; but in Wales they settled down, as an aristocracy of conquerors, on the old Iberian inhabitants, from whom they were utterly alien in speech, institutions, and ways of life. They believed intensely in purity of blood, maintained by a rigid agnatic system in which, as opposed to the maternal kinship of the Iberians, they traced relationship exclusively through males. They were grouped into *gwelys* of three generations, of male descent, and these again into larger kindreds of *cenedls*, or clans, of nine generations, under a *pencenedl*, or clan chief, representing the eponymous ancestor, real or imaginary, of the kindred. Intermarriage within the *gwely* was forbidden, intermarriage within the *cenedl* was the rule; all this in profound contrast with the scandalous inter-marriage system of the Iberians. Instead of Druids, or soothsayers, the Kelts had Bards, or singers and harp-players; though, like the Christian Church of later ages, in dealing with heathen practices, they allowed a modified Druidism to survive, with its holy wells and sacred stones, for the benefit of the weaker brethren. These latter, however, were rigidly excluded from the ranks of the "free Kymry," or comrades, and appear in the Laws as the *caethion*, or chattel-slaves, and the *taeogs*, or serfs, whose *taeog-trevs*, or hamlets, are sharply distinguished in the Laws from the *tyddins*, or family holdings, of the Kymry. Vaguely between these two classes floated the *alltudion*, or free but kinless men, especially after the English invasions had driven many of the Keltic inhabitants of eastern England into the Welsh mountains, to form the nucleus of future feudalism by attaching themselves as clients to the older settlers. As befitted a shepherd people, the land of the Kymry was the land of the clan, not of the individual. But each *gwely* had its temporary holding; and each individual within the *gwely* was entitled, on attaining full age, to his or her share. Hence the importance, in kymric society, of the family pedigree, and its keeper—the *Synnachy*, as the kindred Kelts of Ireland and Scotland called him.

This barbarian society was, as is well known, for some four hundred years (from A.D. 50 to A.D. 450) dominated, but not transformed, by the Roman Empire. The handiwork of Rome is manifestly there in the great cities of Chester and Caerleon-upon-Usk, at the northern and southern ends of the eastern boundary of Wales; and there are other visible traces of the Roman invasion. Yet the permanent changes wrought by Rome in Wales seem to have been few; though some were important. The Roman officials appear to have

superseded, but only temporarily, the barbaric blood-feud by the ordered law-court; and M. Joseph Loth, the great French philologer, in his well-known work *Les mots latins dans les langues brittoniques*,[1] estimates that, as judged by the Latin roots to be found in Welsh words, the chief contribution of Rome to Welsh culture was in agriculture and the domestic arts, with the important addition of the Roman writing, which superseded the old barbaric ogams or runes. But Father Chevalier has made one startling and original suggestion, which, if sound, has far-reaching implications, that Wales, clinging, in the dark days of the barbarian invasions from the east, to its memories of the ordered rule of Rome, learned then to think of itself as a province of a mighty Empire, and, therefore, to develop that intense local patriotism which, undoubtedly, marks the Welsh people at the present day. Against this provocative but somewhat disputable view may be set the fact, that the Welsh national hymn is: not, *Land of our Province*, but, *Land of our Fathers*.

The next element in the up-building of the Welsh character is, of course, the struggle, carried on at intervals for seven centuries, with the barbarian invaders from the east and north—the Saxons, Angles, and Danes, who ultimately coalesced to become the English people. In the year A.D. 410, the Emperor Honorius uttered the fateful words: "Let the cities of Britain defend themselves"; and the final appeal was made in vain to Aetius thirty-six years later. The Roman Empire was falling to pieces before the onrush of the barbarians; Britain could not hope to escape. The English have never been a vindictive people; they dropped the blood-feud earlier than any other people in modern Europe. But they are apt to hit hard when provoked, or thwarted in their ambitions; and the country east of Offa's Dyke was "unhealthy" for a Welshman for many centuries. Moreover, the bitterness of the struggle was accentuated by the contempt felt by the Kelt of Britain, thinly veneered with the luxury and civilisation of provincial Rome, and humanised, to a strictly limited extent, by the first evangelisation of Britain under St Martin of Tours, for the rough, clumsy, heathen Angle or Saxon. Nevertheless, this "pore benighted heathen" proved himself to be, in Mr Kipling's words, a "first class fighting man"; and the mythical story of the three crucial centuries of the struggle between Kelt and Teuton in Britain, known as the Arthurian Legend, is a story of defeat and, ultimately,

[1] Paris, 1892.

despair. The struggle failed to cure the Welsh people of that fatal defect of tribalism, the absence of a central authority; and, though the brief century of Cunedda and his sons came very near to producing a Kingdom of Wales, yet, with the death at Rome in A.D. 655 of Cadwaladr, the last *Gwledig* or High Chief of Wales, the movement died; and Wales became a country of inter-tribal feuds, which ultimately made it the easy prey of the Norman knight and man-at-arms.

But, in losing its body, Wales had saved its soul. The finest part of Father Chevalier's work is that in which he describes the Age of the Saints in Wales, that marvellous period—roughly speaking, the sixth century, A.D.—in which the missionary efforts of St Germain d'Auxerre gave rise to a native church whose great names are Illtud, described as "Cousin of Arthur," a grand-nephew of St Germain, and Saint David, the gentle apostle of South Wales, whose fame and charm rival those of his predecessor St Patrick and his successor St Francis of Assisi. Born into a society described for us, doubtless with some prophetic exaggeration, by his disciple Gildas, a society evidently thrown into disorder and anarchy by the unsuccessful struggle with the invading heathen, Saint David flung himself with fervour into the task of evangelising his beloved countrymen, and consoling them with religious ardour for their temporal defeat. He succeeded in covering the peninsula with a network of monasteries, not of the older Benedictine, or recluse, type, but of the later, popular type of the early Franciscans. His system was, in fact, the old tribalism made over on ecclesiastical lines, with the abbot or prior substituted for the tribal or clan chief, and the monastery for the clan. This, in reality, was the cause of the struggle between the Keltic Church of St David and the English Church of St Augustine, which culminated so disastrously for the former at the famous Synod of Whitby, or Streonalesch, in A.D. 664. For, by that time, the clumsy English had overtaken their disdainful rivals in the arts of agriculture and the weaving and spinning of wool, and had based their Church on a parochial and diocesan, that is to say, a territorial basis; while the British Church still clung to its personal organisation of household and clan. Nevertheless, the British Church of St Ninian and St David had taken a deep hold of the Welsh people; and, altogether, it is not unlikely, that the long period of monastic religion in Wales, which preceded the ultimate formation of the parishes (*plwyfs*) and the four historic dioceses of St David, Llandaff, St Asaph, and

Bangor, left an indelible impression on the soul of Wales, which, periodically stirring in its historic depths, gives rise to the famous religious revivals such as that associated with the name of John Wesley in the eighteenth century, the latest of which originally attracted, as we have seen, Father Chevalier to his great study.

This, then, is an example, as I have imperfectly described it, of the artistic, or philosophic method of writing history. Its subject is, not a country, nor a movement, nor a single aspect of life; but a *community*, a group of individuals fused together by the bonds of a common life and a common faith. This group has a material and a spiritual side; and there are elements which have gone to make up each. You take these elements one by one, you fuse them together, not into a mechanical mixture (co-operative history is not History), but into a chemical compound. How do you do it? Well, how do you "do" a scientific process? Since the days of Francis Bacon, it has been accepted, that all scientific study is based on experiment. In other words, the conclusions of the man of science are inferences from experience, the experience of the senses. Art has *always* been based on experience, the experience of the soul.

That, it seems to me, is the point of contact between History and the Historical Novel; I mean, of course, the good historical novel. The latter must be based, just as much as History itself, on as complete a knowledge of facts as the evidence permits. Even a pure romance, like Kipling's *Puck of Pooke's Hill*, is rightly praised by Dr Trevelyan as a wonderful stimulus of the historical sense. And I would venture even to add, that it is a far better text-book for the schoolboy, than the dreary manuals of which I have given an illustration; for no historian can read it without feeling that, behind its apparent frivolity, lies a deep and intelligent study of historical facts. It may seem a bold thing to say, but, personally, I doubt whether, if historical romances of that kind (equally sound on facts) were made the sole medium of historical teaching in secondary schools, the cause of History would suffer. For older readers, novels like Thackeray's *Esmond* and *Vanity Fair*, or the American Winston Churchill's *Coniston* and *The Crossing* (two of the best historical novels in the English tongue), are probably of far more value than the solemn "scientific" treatises; and, as stronger meat, such really learned works as Fru Undset's *Kristin Lavransdätter*, which brings vividly before us the political, social, economic, and religious life of Sweden and

Norway in the fourteenth century. For, instead of dazing the mind with vague generalisation, or wearying it with undigested facts, such books show the working of the time in the actions of men and women, always of far more interest than mere "streams of tendencies." Though it would, perhaps, be going too far to claim that the ultimate test of truth is fitness for the purposes of the decorative imagination, it is profoundly true, that no History can be great which is not inspired by the exercise of imagination, one of the best of God's gifts to His children, and the interpretative medium of all true Art.

If, in conclusion, we ask: What are the uses of historical study? we may well agree with Dr Trevelyan in answering, in effect: "If you mean by 'use,' technical or professional use, practically none." [1] So infinite are the changes which Time brings in the condition of human affairs, that the maxim: "history repeats itself," is the most dangerous of guides for the politician and the statesman. The "use" of historical study is probably put at its highest by Bishop Creighton in his interesting Address entitled *The Picturesque in History*.[2] Speaking, in the year 1897, of the former indifference of the average intelligent person to the study of History, as compared with the increased popular interest of that day, Dr Creighton says: "There is now-a-days a conception that things have grown, and that the way to mend them is to get them to grow in the right direction." In other words, the "use" of historical study is to produce the historical mind; and the "use" of the historical mind is to warn the reformer that Nature works by degrees.

But if we substitute for the somewhat materialistic word "use" the more comprehensive and truly philosophic word "value," then, indeed, the patient, reverent student of History will find that he has not wasted his time. Even in the matter of the pure delight which it affords, is it nothing that a study of History enables the student to read his own country-side and ancient city like an open book, to thrill with the great deeds of his fore-fathers, to watch the fateful march of his fellow-men and women across the sands of Time? If such delight be sinful, is it not true that, like the kindred pursuit of travel, the study of History, wisely pursued, tends to broaden the outlook, to strengthen the judgment, and to enhance the sense of proportion of the student; because, like travel, it applies to his mind the

[1] *Clio*, pp. 6–7.
[2] Historical Lectures and Addresses, p. 263.

beneficent influence of all comparative study. For, just as the traveller compares things and persons in foreign countries with things and persons in his own, and returns with a keener perception both of the defects and the merits of the latter, so the student of the history of his own nation compares one period of that history with another (including his own), and therefrom learns to read his own age aright. Finally, the study of History should provide the student's maturer life with consolation and reflection. It is one of the compensations of growing years that, if the foundations of study have been well laid in youth, all acquisitions of knowledge seem, somehow, to "fit in." And, as long as the daylight lasts, one can always be fitting new bits into the jig-saw puzzle of History, with increasing ease as the picture becomes more complete. And when the daylight fades, and the picture grows dim to our straining eyes—well, there are always the stars.

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BISHOP'S TAWTON, N. DEVON.

THE PLAIN MAN AND WORLD LOYALTIES.

F. B. BOURDILLON, M.A.

In the early part of last year a small group of Londoners, each concerned professionally with some aspect of international affairs, under Evelyn Wrench's leadership, laid the foundations of an international association for the promotion of personal friendships between individuals of all nationalities.[1]

This organisation is a sign of the times. For the All Peoples Association—or "Apa," as it is coming to be known, for short—recognises no barriers of creed or class, of race or colour. All that is needed for enrolment is an annual subscription and the signature of a member of one of those professions which qualify one to witness a passport application.

The first object of the society is :

> "to make the ordinary man in each country better acquainted with his fellows elsewhere and . . . to do for ordinary mortals what the meetings . . . at Geneva have done for political leaders and statesmen."

Subsidiary or secondary objects are :

> "to establish a magazine . . . which would be sent to every member of the society [and] to establish club headquarters and information bureaux in every country throughout the world, so that every member . . . would find a welcome awaiting him wherever he might happen to be."

It is to such a multiplication of individual friendships that we are to look for a true advance in international relations.

[1] The International Headquarters are at 99 Gower St., London, W.C. 1.

"One of the most useful contributions made by the League of Nations to humanity [says Wrench in introducing Apa to the readers of its first bulletin] has been the unique opportunities it has given to the statesmen of the nations concerned of getting to know one another and to understand each other's points of view. It was that spirit which resulted in Locarno . . . "

"How are future wars to be prevented? . . . There seemed to be only one way. To make ordinary people better known to one another, to establish personal contact, to make ordinary folk, like you and me, feel *at home* no matter in what country we might happen to be."

Is such a development inconsistent with patriotism? Is there a conflict of loyalties? No, for:

"The fundamental fact on which Apa has been based is that the citizen giving hundred per cent. allegiance to his own country or group of countries or to the culture of his particular section of the human race, still remains a citizen of the world and that *his duties of world citizenship do not conflict with those of his national citizenship.* In fact, the contrary is the case; the better citizen the man is in his own country, the better world citizen he will probably be."

It will be generally agreed that in public affairs the human race is moving, rather more rapidly than usual, in two apparently inconsistent directions, internationalism and nationalism. We have signed the Pact for the renunciation of war; yet never in times of peace have we spent more on armaments. We find, as the International Chamber of Commerce has recently put it, "that the development of the world crisis has clearly demonstrated the economic and financial interdependence of all nations"; yet never have tariffs been so high, or the anxiety of all nations to be self-supporting so great. The teaching of history, geography, modern languages and international relations has increased almost beyond measure during the century; yet as Professor Speight has pointed out, the spread of public education has been leading more and more to the universal inculcation of exclusive forms of patriotic belief into the minds of the young generations in all modern states.

Can we find a solution of this enigma? Is it true that we are advancing in two directions which will one day lead to an agonising conflict between narrow patriotisms and the

greater loyalty? Or is the advance in one direction real, the other apparent? Or is the apparent opposition between the two merely an illusion?

Arnold Toynbee offers an ingenious explanation of the contrast, which to him is decidedly real.[1] He contends that the main characteristic of world affairs since 1918 has been the "tendency of all human affairs to become international," and asserts that the

> "surest sign that the fetish of local national sovereignty is our intended victim, is the emphasis with which all our statesmen and our publicists protest . . . at every step forward which we take, that, whatever changes we may make in the international situation, the sacred principle of local sovereignty will be maintained inviolable."

If this is the true explanation, our present excesses of nationalism are a parallel to the declaration of the young lady who, her heart having been won, vehemently protests that she will never marry. For, as in the lady's case, our capitulation is as yet subconscious. As a recent leader in *The Times* put it:

> "The conviction of the essential community of interests of all countries does probably exist subconsciously almost everywhere; yet hardly anywhere has it been brought to full consciousness, or turned to international account."

This brings us to the real problem.

> "The measures which interdependence demands, [says the same writer in *The Times*] and the value of which is sincerely and emphatically admitted on every side, are in practice regularly obstructed by suspicions, mistrust, and narrow selfishness. Hardly a meeting is held at Geneva without the virtues of co-operation being extolled . . . yet the delegates who pass these resolutions apparently become helplessly merged in national prejudices as soon as they return to their native countries. They find national individualism still so strong as apparently to be unchallengeable."

Parallels could no doubt be found in Germany in 1848, in the United States before their union, or in India and possibly China to-day. Examples could be culled from the recent

[1] In *International Affairs*, November 1931.

action of probably all the great Powers in relation to Geneva; but it is not necessary to look beyond the mainly negative attitude which we ourselves have adopted in relation to some most vital proposals to which our signature had at first been given. These are the Draft Treaty of Mutual Assistance, the Protocol, the Eight Hour Day Convention, and at first the Optional Clause and the Kellogg Pact.

In face of this tendency to an attitude of negation, it is hardly possible to remind ourselves too often of the importance attached, by statesmen and experts alike, to the establishment of international control of international affairs, if merely in order to maintain civilisation as we know it. As Professor Gilbert Murray has reminded us:

> "For every civilised nation henceforth the first and most vital interest is to be free from the prospect of war, but most of all for the British Empire. We stand to gain nothing by war; we stand to lose all. We are of all the Powers of the Eastern hemisphere the richest, the most contented, and the most vulnerable."[1]

He quotes Lord Grey's dictum "we must learn or perish," and Mr. Baldwin's question:

> "Who in Europe does not know that one more war in the West, and the civilisation of the ages will fall with as great a shock as that of Rome?"

Professor Zimmern, in *Learning and Leadership*, sums up the situation and points to the cause.

> "If [he says], the idea for which the League stands is not to perish owing to the difficult conditions under which it has been realised, two things are urgent. Statesmen must have the courage to make clear to their peoples that the League is not doing, and cannot do, the work for which it was created because its intellectual foundations have not yet been laid. And all those whose activity lies in the realm of the intellect must set to work to lay those intellectual foundations. If these two tasks are not undertaken, and undertaken soon, the present drift will end in disaster."

"The political interdependence of the world," Professor Zimmern contends,

[1] *The Ordeal of this Generation*, p. 234.

" is the most important fact in the postwar international situation. But our eyes, accustomed to a miniature canvas, obstinately resist the enlargement of scale. Our minds refuse to make the innumerable necessary adjustments. It is easier to continue in the pre-war groove, . . . than to banish old habits in the light of new conditions and to face the whole problem afresh. Yet this, and nothing less than this, is necessary if human society is to remain civilised." [1]

We thus begin to see light on the problem : events have moved too rapidly : our nations have become interdependent as it were overnight. " Innumerable mental adjustments " are necessary in public opinion in all the civilised world. This is at least one part of the diagnosis.

Civilisation, according to Professor Zimmern, is " Control over Environment." This control was lost in 1914, as far as it had ever been attained in relation to human politics ; and now he tells us it

> " can never be recovered by the unaided action of statesmen ; for statesmen . . . are limited in their policies by the public opinion and the parliaments to which they are responsible." " It is because the peoples do not understand the problems of the post-war world that their statesmen are unable to control them."

It is common to find vaguer and more general expressions of what is needed, in particular that we need a change of " heart " in the world before real peace can be assured. This somewhat loose expression may, however, be dangerous. It may be taken as suggesting that nothing we can do will avail, and that such a change is required as can only come of itself and at a date which cannot even be approximately predicted.

From this fatalism Professor Gilbert Murray recalls us. " There is no change to be made in human nature," he says, " only a change in human habits." The habits to be changed, we are led to infer, are the habits of thought, speech, and action which differentiate our attitude to other nations from our attitude to other groups within our own nation. " The problem," Professor Murray explains,

> " is to produce a general state of mind in which the possessors of force will really use it for maintaining the general peace and not merely for supporting their own interests."

[1] *Learning and Leadership*, pp. 10–11 (Oxford University Press).

The kind of imperfection, he says, which has most hampered the working of the League for peace, "can only be removed by a much more whole-hearted acceptance of the League spirit and League methods on the part of the Great Powers." In other words, if our habitual attitude towards other peoples were the same as our attitude to our fellow nationals, our statesmen assembled together under the auspices of the League would then be able to give us the international organisation and control which are necessary for our international well-being.

* * * *

How are these changes of habit to be effected? Professor Zimmern tells us through education. He would have us bring our whole educational system into line with the new conditions by sending every school teacher abroad for one year before he or she is thirty years old, every university teacher in the relative subjects spending one term abroad every year. For those concerned with international relations he suggests with cogency that they should attend international *seminars* like that which he himself has so admirably built up at Geneva.

Among Professor Zimmern's many supporters in this general view is Mr. H. W. Nevinson; for to his mind

> "international education is far more sure of success in bringing peace to this world . . . than even a League of Nations." [1]

The practical possibility of such a "readjusting" of the educational system is shown in the "Declaration" (and Memorandum) "concerning the schools of Britain and the Peace of the World," sent by a committee of Teachers' Associations to the Board of Education. The memorandum goes so far as to recommend that Universities and Training Colleges should specially prepare all teachers to give instruction on international relations and expresses the view that "a sense of world citizenship has to be created." "Disloyalty to the whole involves disloyalty to every part, including one's own state."

So much for the education of future generations. What there is to hope for through its means is superlatively good. But it is a hope for the future, and time presses. We are spending on preparations for war and for resistance to war

[1] Whitehouse and Gooch: *Wider Aspects of Education*. Cambridge, 1924, p. viii.

many times what we spend on preparations for superseding it by rational institutions. We have also, and indeed first and foremost, to deal with the ordinary adult citizen, in democratically governed countries the voter; in fact, with ourselves. If we analyse the points which distinguish our attitude to other nations from our attitude to our own we find an uncomfortably large number of adjustments to be made before we can view our international neighbour with the comparative lack of prejudice we bear towards our fellow citizens.

Slight international contacts may be positively dangerous. We think of foreigners as people who have a lower standard in some ways than ourselves, forgetting that owing to the real variations in standards they must necessarily think the same of us. We tend to think of them, after the little incidents attendant on our travels, or theirs, as persons who either dislike fresh air, or smoking, or bathing, or sports, or official supervision; or who like some of these things overmuch. We think of them as people who spend much money, or too little; whose education is too vague, or too detailed; whose manners are too coarse, or too refined; whose sense of humour is lacking, or at least different to our own; whose sense of honour is apt to fail where we expect something of it, while it may be outraged by something we say or do in all innocence of heart. Little wonder that Professor Zimmern is moved to say that the

> "problem created by the maladjustment of the tourist to the countries through which he is transported has been unduly neglected, [and that one of the] grossest fallacies current in the nineteenth century was that international understanding could be promoted automatically by the multiplication of individual contacts." [*Learning and Leadership*, pp. 48–9.]

We have also to consider the fact that most of us have had little or no direct contact with foreigners except at second hand or through the press.

> "Public opinion of a foreign nation [says Professor Guthrie, of the University of Washington] is made up of a mass of current phrases which have their origin in part in returned travellers' tales. Chesterton is probably right in saying that travel does not broaden one. Our experiences abroad, which expose us to the diet and folkways of other nationals, are apt to be irritating

rather than otherwise. The behaviour of foreigners in our own country sets them apart. They are ignorant of our folkways, cannot speak our language correctly, are apt to express opinions hostile or contradictory to our own. Moreover, our attitudes toward other nationals are in part made up of news items which are apt to be limited to the strange, the bizarre, the shocking. . . . Out of these various elements there is constructed a pseudo-reality which has no resemblance to the actual state of affairs in a foreign nation. This pseudo-reality, however, governs our attitude towards that nation."[1]

* * * *

Into this field of thorns and thistles " Apa " steps boldly with the confidence of youth. It can take courage from the fact that it is far from being alone there, but its task is, nevertheless, an ambitious one. For the ordinary person is ourselves and has all our pet aversions and prejudices. We are all the " man in the street " the moment we step outside our peculiar field of work or study or other specialist experience. Hence the success of advertisement. For while we may not allow ourselves to be misguided where we know, none of us are specialists in 90 per cent. of life ; and here the catchword, the oft-repeated slogan, act suggestively on our minds. Nine of us out of ten take without serious question the admonitions to " see our own country first " and " buy British " ; and to give our own government equal power to negotiate in tariff questions, and power to bargain in matters of disarmament, or make our due contribution to the policing of the world. In all of these particular matters we may be perfectly right, but when we come to constructive international policy we are at once beset by our own ignorance and prejudice and a mass of traditions that make us opposed to change and even to the very contemplation of it. And it is here that Apa, and all institutions that have the same end in view, have to stand their real test. The special value of international friendships, as contrasted with others, will for our present purposes depend on the results to which they lead in increasing our national understanding of all other national points of view ; so that we as nations may be ready to support and, if need be, urge our governments to courses which are equally in the interest of all. We must be ready

[1] E. R. Guthrie : *Psychological Bases of War and Peace* (in *Problems in International Understanding*. University of Washington, 1928).

to understand not only the circumstances of other nations but their attitudes.

> "How many of our present difficulties [says Professor Zimmern] are due to ignorance of these deep underlying difficulties between social values and attitudes of mind! And how many are due to the subtle relationships of superiority and inferiority that are too often set up as a result of them! Not one ambassador but tens of thousands are needed to counteract these perpetual incentives to misunderstanding and irritation."

Another of the difficulties is just laziness. Mere inertia is indeed a grave enough obstacle, at least in Europe. Professor Toynbee, in a recent broadcast address, speaks of Europe as being now threatened with destruction by the returning wave of Western civilisation, which she herself had originally set in motion. The wave of progress which went out from Europe from the sixteenth to the nineteenth centuries, is now coming back with greater energy from America, Russia and Asia. What, he asks, would these people say about our present attitude to it? He believes they would say that

> "the characteristic feature of European civilisation, as we see it to-day, is its conservatism. Europe nowadays is the most conservative place in the world."

* * * *

If we set ourselves to inquire what personal friendships with members of another nation can achieve, we must recognise certain obvious limitations. It can hardly be suggested that even if multiplied indefinitely they could under all circumstances prevent war. There is even a certain danger in the multiplication of associations between two particular peoples, producing as it may an over-favourable attitude in one towards the other with corresponding prejudices against one or more third parties. Hardly anything perhaps produces stronger prejudices in an individual than exclusive association with members of a single foreign nation. It is not for nothing that the rules of diplomatic services for the most part preclude a stay of more than three years in any one capital continuously.

There is, moreover, an opposite risk which attends long residence abroad, namely that of quasi-denationalisation, where the absentee loses touch with the feeling of his own country and ceases to be representative of it.

The most obvious and valuable result of foreign friendships—of travel in the sense in which the term was used in the eighteenth or early nineteenth centuries—is that the traveller inevitably corrects his outlook on international affairs, particularly on the position of his own country. He may have more to teach his foreign friends than he has to learn from them; but he must inevitably come to see that in matters of custom, politics, morality, history and outlook, his national point of view is not the only one; and that those of other nations have some substratum of reasonableness, and make some contribution towards the good of human society. If he learns this much, all the trouble he may have taken has been worth while.

For when all is said and done, the effects of friendship, if it is worth the name, are of the same kind, whether the friend be of the same nation or of another. Free and intimate intercourse in either case brings out the points of view of each of the parties and shows to each the mainsprings both of the other's actions and of his own. And from this interchange of hopes and fears, of fancies and forebodings, comes not only mutual comprehension and sympathy, but an enlarged outlook and an adjustment to it of the lines of each person's thought and conduct. Profound as the influence of friendship may be in the lives of individuals, it may be even greater in extent in cases where the persons are of different nations. For here the prejudices have had a freer field, the shocks which they receive are greater, and the consequences in the subsequent action of the participants the more far-reaching.

But in international friendships, even where they are hardly deserving of the name in its highest sense, there is a further quality which is most frequently absent from friendships between fellow-countrymen. They disclose, and serve to resolve, not only individual peculiarities and misapprehensions, but those which perhaps are absent in the particular individuals, yet are characteristic of the groups to which they belong. As friends in conversation together may each find revealed to himself individual traits and habits of which he had been mainly or wholly unconscious, but which owing to their antisocial character he is glad to recognise and abjure; so in international friendships national traits are revealed and seen to be contributing elements in the misunderstandings and lack of co-operation between the countries concerned. The most ordinary occurrences afford examples. "A" does not like a particular Ruritanian, and

from this perhaps very reasonable dislike he acquires a general mistrust for all Ruritanians. One day he happens to mention him to a Ruritanian friend, when it transpires that the particular man is as much mistrusted in Ruritania as abroad. "A's" attitude to Ruritania and its people undergoes a complete change. "B" finds that Erewhonian visitors to his country are arrogant and ill-behaved. One day he makes friends with an Erewhonian who of his own accord makes the same complaint. From that moment Erewhon appears to him in a new light.

These are simple, individual cases. Our national attitudes have other more formidable features, which are nevertheless the aggregate of numberless individual standpoints. As nations we are certainly more prone, than as individuals, to pride and touchiness; to reluctance to apologise or confess an error of judgment; to obstinacy in carrying out plans once decided; to fear for our security, or fear of not having all we may need; to inability to see any other side to our case but our own, to a conviction of our own superiority and tendency to regard other nations as inferior; or to historical grudges and resentments and a watchful jealousy and difficulty in co-operating with others. These things we know, and perhaps have learnt to control, in ourselves. In international friendships, and for that matter in international study, we come to see them both in our own national actions and in those of other nations. If we are fortunate, we come to recognise them not as typical of our own or of any other one nation, but as typical of uncontrolled human groups as such, and as prominent particularly in nations just because nations admit of no control.

Yet these petty national vices, destructive as they are to the peace of the world, must inevitably be brought under control. And it is in this ultimate process of their diagnosis and subjection that such international friendships play their part. For the ultimate effect of the study of the habits of nations and their inconsequence is to produce the attitude of the philosopher in action; who sees through their deficiencies but takes peoples as he finds them and reveres them for what they are destined to become: Tribes in the world-wide federation of the human race. Albert Schweitzer could say of him, as he says of Fichte:

> "That the human race, in a more perfect state, will attain perpetual peace is for him as certain as the ultimate perfection of Nature. True, we are at present

still in an age of halts and temporary retrogressions. But when this period is once past and when ' every useful discovery that is made in any part of the world is at once made known and shared with all, then uninterruptedly, without halt or setback, by common effort and with one accord, humanity will advance to such a level of living as it is at present beyond our capacity to conceive '."

For in short the net effect of international friendships is to produce a consciousness of world solidarity; not superseding patriotism, but enriching it and freeing it from its weaknesses and destructive by-products. It is profoundly true, in the best sense of the terms, that the better citizen a man is of his own country, the better world citizen he will be. It is by the spread of this perception, through individuals who have taken stock of the nations, that the world will be brought to the state of harmony and combination to which, at the Peace Conference of Paris, President Wilson said he looked forward,

" when men would be as ashamed of being disloyal to humanity as they were now of being disloyal to their country."

* * * *

Perhaps the All Peoples Association might adopt, as one of its texts, a passage from the letters missive of Edward VI., to which attention was recently drawn in a letter from Lady Oxford to *The Times :*

" Forasmuch as the great and Almighty God hath given unto mankind above all living creatures, such an heart and desire, that every man desireth to join friendship with other, to love and be loved, also to give and receive mutual benefits; it is therefore the duty of all men according to their power, to maintain and increase this desire in every man, with well deserving to all men, and especially to show their good affection to such as being moved with this desire come to them from far countries. . . . For the God of Heaven and earth, greatly providing for all mankind, would not that all things should be found in one region, to the end that one should have need of another; that by this means Friendship might be established among all men, and every one seek to gratify all."

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Oxford.

SURVEY OF RECENT THEOLOGICAL LITERATURE.

REV. PROFESSOR JAMES MOFFATT, D.D., D.LITT.

WHEN Dr A. S. Peake died, I ventured to hope that the authorities of Manchester University would reprint some of his essays from their series of Rylands publications (HIBBERT JOURNAL, XXVIII. 2, p. 354). This has now been done. We are deeply indebted to the University Press for *The Servant of Yahweh*, etc. (6*s*.), which supplies the public with not only some unprinted material, but with such admirable studies as "The Quintessence of Paulinism" and "The Messiah and the Son of Man." To re-read these eight essays is to regret afresh that Dr Peake did not live to write the two volumes which he often spoke of, one on Old Testament religion and the other upon the apostle Paul. He had a singular faculty of penetrating to the heart of a complex subject, and also of presenting his conclusions in a way acceptable to more than technical students. These gifts are shown in the present volume, which also proves how he was a master both of the Old Testament and of the New.

As most are aware, Dr Peake held that the "Servant" in second Isaiah is the "empirical Israel regarded from an ideal point of view," and in these lectures he restates that conclusion. The most elaborate volume upon ancient Israel which we have to chronicle, however, does not reach the period of the exilic and post-exilic prophets. The first part of Professor C. Toussaint's *Les Origines de la Religion d'Israel* (Paris, Geuthner), entitled "L'Ancien Jahvisme," stops at the rise of prophetism. It exhibits the increasing influence of archæological research upon estimates of Israel hitherto drawn in the main from literary sources. Professor Toussaint analyses with brilliant radical method, which sustains interest to the very end, the primitive Elohism of the patriarchal period, and then the rise of the more exclusive nationalistic Jahvism under Moses. Considerable significance is attached to Babylonian influence, by the way. Indeed the author is keenly alive to the affinities between Israel and the Semitic complex. In an article entitled "The Modern Attack upon the Historicity of the Religion of the Patriarchs" (*Jewish Quarterly Review*, 1931, p. 119 f.), Dr E. König protests against this school of

interpreters for assuming "as self-evident that the true religion of Israel could not have possessed any peculiar traits," but this criticism would not apply to Professor Toussaint, who notes that the idea of a pact or covenant, with moral obligations for Israel, is unique in Semitism. Similarly Mr S. H. Langdon, in *Semitic Mythology* (Marshall Jones, Boston), a masterly survey which is the fifth volume of *The Mythology of All Races* (edited by Canon MacCulloch), finds that Sumero-Babylonian mythology raised problems of which the true import was recognised by the Hebrews alone, and incidentally adheres to those who believe that "both in Sumerian and Semitic religions monotheism preceded polytheism and belief in good and evil spirits." From another point of view Miss M. B. Crook (*Journal of Biblical Literature*, 1931, p. 156 f.) suggests that the Hebrews were unique in their threefold attempt to unify the national life by means of the monarchy, the prophetic theocracy, and the priest-king who ideally was to rule the land as the representative of Yahweh. According to Professor Toussaint, the prophets found it needful to challenge and displace the earlier Jahvism in the interests of something higher than a form of henotheism which lay open to superstitious and narrowing associations. This is one of the issues which happen to be raised by Dr Rudolf Otto in *Religious Essays* (Oxford University Press; see pp. 98 f.), a book which elaborates some of the ideas started by his previous treatise on Holiness. The range of the book is wide, covering modern Protestantism no less than biblical theology and ancient religion, but there is a specially fresh chapter on the idea of God in the Old Testament prophets.

So far as the prophets are concerned, Ezekiel has been most studied of late, partly on account of Dr Torrey's stimulating volume. A reasoned reply to this has been made by Canon Battersby Harford in *The Expository Times* (XLIII, p. 20 f.), who agrees with Budde (*Journal of Biblical Literature*, pp. 20 f.) that the opening words "it was in the thirtieth year" refer to Ezekiel's own age at the time of his call, instead of being a mutilated form of some original which ran "in the thirtieth year of Manasseh." Although Dr James Smith, in his ingenious monograph on *The Book of Ezekiel: A New Interpretation* (S.P.C.K., 5*s*.), agrees with Dr Torrey that the sins denounced are those of the nation under Manasseh, he too declines to regard their description as an imaginative account penned during the third century. The suggestion is that we have two sets of oracles composed by a man in Northern Israel, whose writings were afterwards edited and combined. This conjecture would account, among other things, for the Aramaic tinge in a chapter like xiii. In the *Biblische Zeitschrift* (pp. 6–19) Professor Goettsberger argues that "Ah Lord God! wilt thou make a full end of the remnant of Israel?" is original in xi. 13, but that the similar cry in ix. 8 is irrelevant and an insertion by some later editor.

In the seventh edition of his *Einleitung in das Neue Testament* (J. C. B. Mohr, Tübingen), Dr Jülicher has had the aid of Professor Fascher, but he has himself supervised the revision of the sections

upon the Pauline epistles. He sets aside the hypothesis of an Ephesian imprisonment, during which any of the extant epistles were written, thinks that Second Thessalonians is sub-Pauline, refuses to read any anti-Petrine tendency in Romans xvi. 17–20, and has no faith in attempted dissections of Colossians or Philippians. The revision has been carried out with thoroughness; although the style is compressed, the book is readable, and in this new guise it is more indispensable than ever for serious students of the New Testament. In the Italian journal *Didaskaleion* (1931, pp. 1–73) there is an article which ought not to be missed, upon the services and the limitations of Chrysostom as a commentator on the Pauline letters. The author, Augusta Marzagora, shows a competent knowledge of the homilies and also of the linguistic problems which are often raised by the great Antiochene preacher in the course of his expositions. Another contribution to this department of theology, although necessarily on a minor scale, comes with the third part of the ninth volume of *Texts and Studies* (Cambridge University Press), entitled *Pelagius's Expositions of Thirteen Epistles of St Paul: Pseudo-Jerome Interpolations*, where Professor Souter concludes researches into Pelagius which have enriched our knowledge of this field during the past quarter of a century. He remarks that "the purpose of an all-wise Providence, in decreeing that an Augustinian should spend a large portion of his life in studying Pelagius, may be regarded as one of life's ironies"! It sometimes happens, however, and generally to the lasting good of learning, that these apparent misfits should occur. Was it not a Quaker historian who wrote the standard work upon the mediæval invasions of Italy? The present monograph prints a series of additions to Pelagius by a Pelagian. One of them is interesting, as exhibiting the temper of the unknown writer's mind. In Philippians i. 17 the apostle writes that he rejoices that "Christ is preached," even by some who thought they were thereby adding "affliction" to his bonds. This large-minded spirit is too much for the commentator. We must not imagine, as some do, that "the preaching of Christ by heretics is permitted." Paul is really rejoicing that he will gain extra merit by having to endure the special sufferings which these ill-conditioned opponents add to his lot!

On 1 Corinthians xv. 32 the same writer interprets the "beasts," against whom the apostle fought, as the enemies at Ephesus who stirred up the people in the riot described by Luke in Acts xix. 23 f. In his recent commentary, *The Acts of the Apostles* (Hodder and Stoughton, 8*s*. 6*d*.), Dr Foakes Jackson dubs the account of this riot one of "the most brilliant bits of word-painting in Acts," though he does not connect it with the reference in First Corinthians. Dr Jackson's book is a masterly sketch, without any padding. He takes an unconventional view of some sections, notably those on the apostle Peter, and he employs all his historical knowledge to explain significant details in the narrative. But he insists upon the skill and literary genius of the book. "To be understood, such a book as Acts

must be admired, and it should be appreciated before it is criticised." This deft, running commentary on the English text will help many readers to appreciate the ethos of Acts as well as to understand something of its historical problems. In commenting upon xi. 19 f, Dr Jackson observes that "this marks a new development in the plan of Acts, which is obscured by the present method of dividing the book into chapters." The new phase is the preaching of the gospel to non-Jews at Antioch. According to Herr W. Michaelis (*Zeitschrift für Neutestamentliche Wissenschaft*, 1931, pp. 88–93) we must, however, distinguish three stages in this development; first, preaching to Jews and proselytes, second, preaching to gentiles, who have to become Jews in order to enter the Church, and, third, the mission which refused to make circumcision and the Law obligatory upon gentile converts. He holds that the passage in xi. 19 f. refers to the second, out of which the third only grew by degrees.

The Fourth Gospel has commanded unusual attention of late. Not only has a fourth edition of F. Tillmann's *Das Johannes-Evangelium* (Bonn) appeared, in the popular series of commentaries which he edits for members of the Roman Church, but Dr Schlatter has published *Der Evangelist Johannes* (Calwer, Stuttgart), to which reference ought to have been made last year. Dr Schlatter has been for years a defender of the theory that "John" is Palestinian, and this book, which is really a learned commentary upon the text, seeks to expound the theory in the light of Josephus and the rabbinical writings especially, with a view to deprecate any hasty reference of Johannine thought to Hellenistic sources. Dr W. F. Howard, in *The Fourth Gospel, its recent criticism and interpretation* (Epworth Press, 7*s.* 6*d.*), gives a most competent survey of research during the past thirty years. This valuable handbook discusses the literary and religious issues, and also offers some tentative conclusions. One is, that the writer had access to non-synoptic sources of information, and that he is right, for example, in identifying the Last Supper with the Kiddush ritual rather than with the paschal meal. Also, some displacement of matter has occurred. (It is interesting that even Dr Tillmann favours the possibility of Chapter V. having originally followed Chapter VI.) Dr Howard considers that the beloved disciple was intended to be the apostle John, but whether the author was or was not a disciple of John, we cannot know. What is clear is "that there is a strong element of history in the Fourth Gospel. . . . In presenting his conception of Jesus to the Church and the world of his time he availed himself of the contemporary religious vocabulary, but was conscious of no departure from fidelity to the Palestinian situation in which the supreme revelation was given." Three points are followed up by other writers. Thus (i.), in treating the vexed question of allegorising, Dr Howard carefully distinguishes between the method of the Fourth Evangelist, "who describes what he believes to be veritable fact, but with a keen eye to the deep revelation which the story may contain," and the imaginative method of constructing a story in order to convey some spiritual truth. This point

is raised by Professor F. Torm in an article on "Die Psychologie des vierten Evangeliums; Augenzeuge oder nicht?" (*Zeitschrift für Neutestamentliche Wissenschaft*, pp. 124–144). He thinks that the internal evidence rather tells in favour of an eye witness, a man who was no docetist but keenly alive to the inner significance of events. It is important to view the Gospel in the light of the author's personality, as revealed by his own statements. "He has a special gift of narrative . . . the details cannot be explained from any æsthetic, pictorial tendency, nor from a delight in heightening the colours of a tale." They point to some closer relationship between him and his subject. One crucial issue is raised by the author over the story of "John" and Mary at the Cross (xix. 26 f.). It is one thing to say that the incident was interpreted to mean that Jewish Christianity is domiciled in Hellenistic Christianity, but quite another thing to hold that the incident was invented in order to bring out this or any similar truth. Our view of the evangelist's mind is altered if we accept the latter conception. And Professor Torm does not feel that such a reading of his temperament is inevitable or even probable. The second point (ii.) is not less vital. Dr Howard agrees with those who regard the Johannine interpretation as in part the sequel to Paul's interpretation of the faith. But this position is challenged by Canon Raven in *Jesus and the Gospel of Love* (Hodder and Stoughton, London; Holt, New York), a stimulating and radical plea for a return to the Alexandrian line of interpretation as opposed to that of Tertullian and the Latin fathers, for whom the Canon has few good words to say. The book is decidedly alive, and if it handles ancient criticism this is in the interests of to-day. Almost simultaneously a volume has appeared which, though in general sympathy with some of Canon Raven's main ideas, proceeds on different lines of criticism. Dr R. H. Strachan's Cunningham lectures on *The Historic Jesus in the New Testament* (Student Christian Movement, 7*s.* 6*d.*) naturally handle the topics touched by Dr Howard and Canon Raven, but Dr Strachan frankly believes that "in the Johannine thought the historic Jesus and the Pauline Gospel are fused" and that this does not derogate from the permanent value of the Fourth Gospel. Dr Strachan's discriminating treatment of the problem involves a distinction between the "historic" Jesus and the "historical" Jesus (or Lord), but at several points it confirms the argument of Dr Howard, and does not involve any speculative theories about the synoptic problem such as are needful for Canon Raven's hypothesis. Also in *The Teaching Church Review* (1931, pp. 80–85) Canon Crum argues that the author of the Fourth Gospel lived and moved in the communion of the Pauline Church as he developed his own first-hand conception of Jesus the Lord. The third point (iii.) is that of the religious meaning of the Fourth Gospel for the present day; Dr Howard is alive to this issue, and it has been presented with attractive scholarship by Mrs Mary Lyman in *The Fourth Gospel and the Life of To-day* (London: Macmillan). Her argument is that we still require what it was the object of the evangelist to offer his generation, viz. a synthesis of the ethical, the mystical, and

the intellectual aspects of the Christian religion. "All three have found harmony with each other in this interpretation of Christianity, and all three have been given an artistic expression that has lifted them above the accidents of any one age or of any one type of culture." This charming and intelligent book of appreciation approximates to the position taken up by Dean Inge in the introduction to *Every Man's Bible* (London: Longmans, Green). If we are to have an anthology from the Bible, this is surely one of the best forms of the enterprise; it is finely printed, and the selections, grouped under such headings as "God," "Christ," "The Christian Graces," and "The Christian Experience," are furnished with a succinct, independent account of the Bible in which the Dean pleads for a combination of the critical and the devotional faculties. One of his appeals is for a recognition of the Wisdom literature. He regrets that the Wisdom of Solomon, "this fine poem, which is used by St Paul, is not in our canon." The plea is reinforced by Mr H. H. Gowen in "The Divine Wisdom" (*Anglican Theological Review*, October, pp. 377–386), which shows how the idea of Christ as the incarnate Wisdom of God is organic to a full interpretation of Christianity. But Dean Inge spends most time on the Fourth Gospel. "It seems almost childishly simple, but the simplicity conceals an art more elaborate than that of any other book in the Bible. There is meaning within meaning, and the deepest meanings are purposely left unexplained. . . . It is one of the greatest books in the world and no study can be too minute to spend upon it."

If the essence of theology be the idea of God, the extracts upon which come naturally first in Dean Inge's selections, it is important to see how this has been interpreted in various phases of Christianity, and a number of contributions have been recently made to this study from one side or the other. We welcome an English translation of Schweitzer's *Die Mystik des Apostels Paulus*, under the title of *The Mysticism of Paul the Apostle* (London: A. and C. Black, 21*s*.), by Dr Montgomery. A preface by Professor Burkitt explains the eschatological thesis of the author. According to Dr Schweitzer, "to be a Christian means to be possessed and dominated by a hope of the kingdom of God and a will to work for it, which bids defiance to external reality." Herein he finds a nexus between Christ and the apostle. On the fundamental issue raised by this argument, Dr E. F. Scott's book on *The Kingdom of God* (London: Macmillan) represents a modification of the views already stated in his *Kingdom and the Messiah*, and a valuable corrective to any extremely eschatological theory. The writer brings out with singular power the pregnant character of the teaching of Jesus, refuses to regard the "kingdom" as purely eschatological or purely inward, and endeavours to show how, although the idea of love is primary, it is not possible to reduce the moral life, as Jesus taught it, to any one principle (eschatological or not), even to love. "In the course of this study I have been impressed more than ever with the depth and many-sidedness of Jesus's message," he writes. He succeeds in conveying a like impression to his readers.

It is not possible here to do justice to the clarity and penetration of a book which rises above the level of nearly all contemporary writing upon the subject. Without entering into polemic, Dr Scott manages to indicate how the rich reality of Jesus, in his message about the kingdom, which Paul and others reproduced, cannot be reduced to a single formula or category. One of the points which he makes is that the exaltation of the Church by St Augustine, though going beyond the teaching of Jesus, witnesses to the truth that the Church grew out of the fellowship originated by Jesus himself. "Whether he literally founded the church or not, he made it necessary."

Dr J. K. Mozley, in his successful sketch of *The Beginnings of Christian Theology* (Cambridge: University Press), does not come down past the Nicene Council, but he prints a balanced estimate of the services rendered by the Alexandrian school to the developing idea of God in the early Church, and at the same time pays a proper tribute to Tertullian. It was by the help of men like Tertullian and Irenæus, as he observes, that "the Christian Church emerged from the Gnostic controversy unshaken in the substance of its faith, and more fully equipped on the intellectual side for the examination of other problems in theology which were demanding attention." A general estimate of such problems is included in the broad survey presented by Dr Shailer Mathews, the Dean of the Chicago Divinity School, in *The Growth of the Idea of God* (London: Macmillan). The range of the lectures is confined to Western civilisation, but Dr Mathews starts by analysing developments in the primitive idea of God, then the various characteristics of the Hebrew conception, then the ethnic monotheism of the first and second centuries when the Christian belief was formulated; finally, he discusses the new theistic patterns necessitated by democracy and science. The summing up is that "the Christian will think of a Christ-like God," and "God" is explained, as against both the humanists and the theologians, in these terms: "our conception, born of social experience, of the personally evolving and personally responsive elements of our cosmic environment with which we are organically related."

Those who desire a corrective to modern emphasis upon anything like undefined "love" as the determining quality of the divine nature or upon a vague Christ-likeness, are supplied by Mr M. D. R. Willink in a penetrating treatise on *The Holy and the Living God* (London: Allen and Unwin, 10*s*.), which in its own way seeks to conserve some of the permanent values in a really Christian idea of God, such as the Barthian theology desiderates. Mr Willink is not obsessed by social psychology. He describes the sense of not unreasonable awe which is vital to religious faith, and which is too deep to be explained by anything like patterns of thought derived from contemporary civilisation, even although the latter may sometimes affect its statement. One facet of this truth is brought out. The divine wrath which reappears, for example in the Jesus depicted by Matthew's Gospel, is not an addition to the conception of God which distorts the spirit of the Lord. On the contrary, as he puts it, "we have grounds

for concluding that there was about the Lord an energy and intensity capable of breaking out into daunting anger, which . . . justified the apostles in carrying forward something of the Old Testament idea of the wrath of God into their teaching of the new order of things." Mr Willink gives reasons for distrusting the attempt to rationalise the idea of holiness out of true Christianity. His timely treatise is a plea for recognising that this is a vital element in the idea of God, as revealed in Scripture and as verifiable in the universe. These reasons are also moving behind not only a striking study of "The Ethical Significance of Worship" by Mr H. Balmforth in *Theology* (November, p. 242 f.), but the systematic presentation of Christianity by a New Zealand scholar, Professor Dickie. *The Organism of Christian Faith* (London, James Clarke), is a massive but moving book, and at one point the author has occasion to discuss this particular element (pp. 99 f.). Dr Dickie has written "a modern positive dogmatic," to quote his own words. He acknowledges frankly indebtedness to Haering and Otto, but he is on a middle course of his own, which does not recognise validity in any idea of God that is no more than a personification of social ideas. It is no "modernist" who writes as he does. For example, in opening a discussion of the divine attributes and actions, he proposes to begin with redemption. "For we are determined to be true to the Christian conception of God from the very outset, and in any Christian view of things redemption is the most characteristic divine activity." If it can be said that the exterior of an animal reveals where it has been, whereas only the interior enables a scientist to know what it is, so it may be said of movements like that of belief in God.

The second and third numbers of the *Studien und Kritiken* are issued together as a Festgabe in honour of the veteran editor, Dr Kattenbusch; while two of the contributions are upon the Old Testament and two on the New, one of the latter being an incisive paper by Professor Feine upon the task of modern investigations into the life of Jesus, the majority, as is natural, relate to patristic studies and to church history, including, however, a study of "the religious apriori" by Dr Gerhard Heizelmann. But special importance attaches to a paper by Herr Otto Michel, who offers an appreciation of the idea of "Deus absconditus" in Luther and the corresponding features in St Paul's idea of God (pp. 189 f.). Though the apostle has no term corresponding to this Latin attribute for God, which Luther opposes to "prædicatus," Michel thinks that both St Paul and Luther had the same thought in mind when they opposed any rationalising of God's nature. The living, holy God is invisible, except to the eye of faith. Human wisdom, even in theology and religious philosophy, cannot explain Him. But whilst the apostle mainly dwells on this mystery in connection with predestination, particularly in Rom. ix.–xi., Luther emphasises it with reference to the problem of creation and evil. The cognate idea of the divine incognito reappears in the Barthian theology, to which fresh attention is being paid in England. That God is unknowable apart from Christ, and that even in revela-

tion He remains in a real sense incomprehensible, is a favourite theme of Barth, who at this point is indebted to Kierkegaard. "God is the hidden God, the deus absconditus of Luther, who becomes the deus revelatus in Christ, but is hidden also in the human incognito of the historical Jesus, which alone is visible to the historian's eye. To see the revelation of God in Christ is given only to the eye of faith." So Dr John McConnachie writes in *The Significance of Karl Barth* (London: Hodder and Stoughton, 6*s*.), an ardent exposition of the German thinker's faith and mind. Dr McConnachie seems to feel some difficulty about Barth's attitude towards the Old Testament or rather about his relation to Old Testament criticism, but otherwise the book is a convinced appreciation, which explains the origin and appeal of Barthian theology with real gusto. It will confirm adherents in their faith and at the same time enable critics of the system to enter into the inner significance of paradoxes which they may feel moved to qualify or to reject *in toto*. Thus Dr A. S. Zerbe, in *The Karl Barthian Theology* (Cleveland, Ohio), concludes by finding to his regret that the sharp antithesis between man and God must be modified; otherwise "Barthianism is a poorly disguised agnosticism." Again, M. Andrè Arnal, in a keen essay contributed to the *Études Théologiques et Religieuses* (pp. 235–263, "Simples remarques sur la théologie de Karl Barth") protests that according to Jesus "la foi . . . est proposée à l'homme, elle n'est pas imposée," that the "deus absconditus" idea unduly narrows revelation as we find it in the Bible, and that in his dogmatic Barth, for all his passionate faith, is really playing upon metaphysical reveries of Hegelianism, which are not merely strange but contrary to the gospel. This is much the same position as that taken by Canon Raven (pp. 57 f.), who discovers the "most evident heresy of the Barthians" in Christology, where they are "explicitly Apollinarian, and for Apollinarius's own reasons." Canon Raven is not alone in thinking that Gogarten's *Glaube und Wirklichkeit* is the most significant book of the Barthian school. But Dr McConnachie will have Barth interpreted by Barth alone, a man "convinced that what the Church needs to-day is not a clever apologetic which will secure a place for it within the modern mind but a fresh, new insight into its own message." He distinguishes between Barth and even Brunner as exponents of the theology, the latter's temptation being, he thinks, "to regard the top as reached, the theology of Crisis as a completed thing, and to proceed to systematise it with his uncommon lucidity and constructive power." These qualities are shown to the English reader in the version of his five lectures or addresses on *The Word and the World* (London: Student Christian Movement, 4*s*.), which present the essential truth of the Barthian position very attractively without undue emphasis upon antinomies and paradoxes.

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REVIEWS.

The Natural and the Supernatural. By John W. Oman, M.A., D.D., D.Phil.—Cambridge University Press, 1931.—Pp. 500.—18*s.* net.

Dr Oman describes his work not as a theology but as an attempt to lay a foundation for theology by considering its methods and its problems; but although the major portion of his inquiry is occupied with the latter the question of right method is his main concern, and the standpoint he takes up in regard to it is the most significant feature of his book.

> "Each kind of reality has its own kind of witness, and this must determine its own kind of method. This cannot be laid down beforehand: and the chief requirement is an open mind to learn as we go on our way. But it is evident that the witness of a sphere which is mainly concerned with what ought to be cannot be the same as that of a sphere which is wholly concerned with what is. We have not only to consider its facts in the light of all the aspects of reality we cannot escape, but to be aware, to the utmost limit of intuition and anticipation, of the whole reality. If this is a higher reality, which is seeking to reveal itself through our whole experience in this present world, it requires us to reach out after our farthest vision and follow even the dimly discerned beckoning of its requirements, as they speak to us of what is beyond demonstration and only discerned in moments of deeper insight and higher consecration." (p. 109.)

The true method is thus "to survey our environment from the highest standpoint we can reach, with all our experience and all our insight as well as knowledge."

The importance of this lies in the fact that the problems of religious philosophy with which the book deals largely owe the form in which they have been bequeathed to us either directly or indirectly to the Rationalism of the eighteenth century, concerning which Dr Oman says that it never asked how such a reality as the Supernatural could be known, but adopted a method which could not know it, however evident it might be, "because it is a method which does not look in the direction in which such a reality could be found." The

ideal it set before itself was, in Cartesian fashion, to start as near to nothing as possible, and to build up by reasoning a whole cosmogony, looking to the lower for the manifestation of the higher and thereby disposing alike of the Supernatural and of the Natural as the means of its realisation.

This error in one form or another Dr Oman finds recurrent in the various attempts that have been made either to explain religion away or to explain it in terms of what it is not, and both kinds of attempt in their turn rest on a prior failure to discern what religion is through failure to use the appropriate means for such discernment. The fault has been not merely that "religion is often studied by persons who are better equipped intellectually than religiously," but that the procedure by intellect alone has been pushed to illegitimate extremes, as when theory has been used as the measure of fact rather than as its explanation. Thus the theory of evolution as applied to religion is only valuable as it covers all the facts, and these must be determined by what we take religion to be and not by how we think it originated and developed. "To start from the quarry and say what the edifice will be, and still more what it cannot be, is beyond human insight, both because the potentialities of the stone are only made known by the using and because the building is more than the stones." In this Dr Oman has on his side such an authority as Sir J. A. Thomson, who declared not long ago that in the long process of Becoming "we must distinguish two kinds of step, those that are merely additive, and those that are qualitative, resulting in the emergence of something intrinsically new."

The question of method is closely allied to that of temper, and in what may be called his *Prolegomena* Dr Oman insists on the qualification of a religious interest and religious attitude in those who would study religion, defending such interest from the charge of bias which professedly "disinterested" inquirers commonly bring against it. Religion is, above all else, concerned with "moving about in worlds not realised," and if "the task which gives religion its unique character is not to secure what man's present interests reveal to him, but to stir in him interests which will make him aware of still higher environment, the turning away of interest from the highest we know would obviously be fatal to any effective consideration of this even as a possibility."

Having examined some of the theories as to the seat of religion with a view to testing the definition of religion which they imply, Dr Oman finds that for all of them the essential quality of religion is its objective reference, its claim to deal with a special kind of environment, and from this he concludes that "religion is an affirmation of what we may call broadly the Supernatural, and that its quality is determined by this outward reference and not by any particular kind of subjective feeling or attitude, while its validity wholly depends on whether such an invisible world exists or not."

The question is how is that validity to be established? Rationalism rightly raised the question, and sought to answer it by producing

its evidences for God, providence, and immortality. But though no faith in the unseen has ever been based on inferences from the seen, or indeed on any intellectual argument at all, it still remains the fact that "religion is an illusion unless it has an objective reality which has a witness convincing to ourselves and not merely heard of from others." Thus the validity of religion hangs on the question of the existence of a supernatural environment and of the special kind of witness to its reality that it gives us. Dr Oman understands by the Supernatural "the world which manifests more than natural values," and the conviction of its objective reality is inseparable from perception of these values, the special values with which religion is concerned being "the holy" and "the sacred," meaning by the former the direct sense or feeling of the Supernatural, and by the latter its valuation as of absolute worth. "Both the Natural and the Supernatural are distinguished by the way in which they make themselves known, which is by the meaning or, in other words, the value they have for us. As the natural world is known by sensation and its various comparative values, so the supernatural world is known by the sense of the holy and its sacred or absolute values."

Of the problems to which this conception of the Supernatural gives rise Dr Oman selects three for exhaustive treatment. They are the problems of Knowing and Knowledge, which is created by the fact that knowing is meaning for the mind that knows, yet is knowledge of reality existing independently and in its own right; of Necessity and Freedom, created by the seeming two-fold nature of the world we live in as on the one hand a rigid framework and on the other a sphere in which we are able to act with purpose and with the free acceptance of ideals; and of the Evanescent and the Eternal, which asks how in the continuous stream of change which marks the Natural there can be any sure faith in the Supernatural as something eternal and abiding.

What has been said above about Dr Oman's method and its importance for this inquiry may be recalled in considering the dichotomies in which he has summed up these three problems. Their use, coupled with the antithetical titles he has given to his earlier works—and indeed to the present one as well—suggests that what more than anything else he is concerned with is the exposure of that methodological error which consists in isolating one aspect of a question and treating it as if it were the whole, a proceeding which inevitably brings into prominence some neglected aspect, with the result that the field of inquiry comes to resemble a chasm from the opposite sides of which two or more structures are thrown out which, however firm they may be to walk on as far as they extend, do not succeed in bridging the gulf. Thus the problem of "Vision and Authority" is to find for both their true place in one experience; of "Faith and Freedom" to maintain their respective rights, not by compromise but by showing their essential unity; and of "Grace and Personality" so to conceive each that all shall be of God's succour yet not by the way of direct omnipotence. As Dr Oman

himself laid down in the last-mentioned work, when by our faulty outlook on life we see it as though through a binocular out of focus, the task of a true theology is " not to effect some kind of working compromise between the two tubes of the binocular but to find their proper adjustment to one clear field of vision."

This principle governs the criticism of the epistemology of Kant, on the one hand, with his theory of knowing and of Hegel, on the other, with his theory of what is known. From their opposite and partial standpoints both philosophers have thrown out quite sound structures across the gulf, but at the point where they ought to meet, namely, the frontier of the mind, an unbridged chasm still yawns between. Nevertheless, to have revealed this chasm is a service with which these thinkers should be credited, for they lay on us the necessity of finding a truer standpoint. This for Dr Oman is the primary mental act itself, what he calls awareness and apprehension, by concentrating on which he arrives at a theory of perception according to which at the frontier of the individual there is a system of symbols without and a corresponding system of sensations interpreting them within, the significance of the frontier being that knowledge can pass it only as our meaning. " Thus knowing is not knowledge as an effect of an unknown external cause, but is knowledge as we so interpret that our meaning is the actual meaning of our environment."

This conception of symbols and meaning serves also as the key by which the problem of finding a concordat between Necessity and Freedom is solved. Neither of them is adequate by itself to provide a complete cosmology, yet both are aspects of the one world in which we live. Since, however, our actual dealing with the world is as meaning and value we are entitled to give to freedom the priority, and our task then is to discover the scope and significance of what seems to make the world mechanical and meaningless. That this is the right order is shown by the fact that science itself is the offspring of freedom, for " only because man can take his ideas out of their context and apply them freely in any other context could he either have created or applied his science," and " there can be no conception of necessary law which is not a free idea acquired in the free exercise of our minds in the free pursuit of conscious ends." Science facilitates the attainment of these ends by providing us with a set of symbols whose very rigidity, so far from justifying deterministic conclusions, is the necessary condition both for our receiving meaning from the environment and for imposing meaning on it, in other words, for making it susceptible to our free uses. Science is thus not only the offspring but the instrument of freedom. " The rigidity of the symbolism is essential for expressing the freedom of the meaning; and this rigidity increases with the freedom of the idea."

The concluding section of the book deals with the relation of the Natural and the Supernatural, or rather with the ways in which in the course of history they have been both related and distinguished. The Natural is the evanescent, and what man seeks in the Super-

natural is the abiding. The way in which he seeks it is his religion. The goal of all religion is redemption from the Natural, and the special quality of each religion, as well as of the redemption it offers, is given by the combination of its peculiar attitude to the Natural and its peculiar theology of the Supernatural. This gives to Dr Oman his principle of classification of religions, which range from the animistic, which seeks the abiding in the Natural, to the prophetic-monotheistic, for which redemption is reconciliation to the Natural by faith in one personal Supernatural, who gives meaning to the Natural and has a purpose beyond it. Of this classification Dr Oman claims that it has the advantage over those classifications which deal with religions as systems of ethics or systems of theology that

> " it keeps before us the essential fact about the religions, that not one of them is concerned with mere rules of conduct about the Natural nor with mere systems of ideas about the Supernatural, but that all are concerned with the environment in which man lives and by which he lives if he is to live rightly, their faith in the supernatural environment never being determined, at least religiously, by mere theory, but always by the exercise of it in face of the natural " (p. 370).

These latter words set forth, perhaps as well as any single quotation could, what is the particular interest of the whole book, namely, the relation of religion to environment.

Dr Oman confessed of one of his earlier works, against which an allegation of obscurity had been brought, that it does not belong to the realm of light literature which he who runs may read. The same may be said of the present work, but a distinction must be drawn between the difficulties that arise from the nature of the subject and those that have their source in the manner of its presentation. Regarding the former they call for " our best equipment of knowledge, experience and ability." Regarding the latter both the author and the reader may be congratulated on the evident pains that have been taken to ensure that a sustained application on the part of the latter shall not fail of its reward.

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Penrith.

The Faith of a Christian. By J. C. Mantripp. London: Holborn Publishing House, 1931.—Pp. 310.—5*s.* net.

Mr Mantripp will be known to the readers of the Hibbert Journal through his reviews of the works of other scholars. His own plunge into authorship takes the form of an attempt to discover and disclose the essence of Christianity. It is an answer to the question " when a man becomes a Christian what is he committed to in thought, action and outlook ? " The central idea of the book is that Christianity is a " life," that is, it is a reaction of the whole personality and not of a

part of it merely; and specifically this life is determined by loyalty to Jesus Christ. Mr Mantripp has sought to avoid, on the one hand, that form of intellectualism which reduces Christian faith to acceptance of a creed; and, on the other hand, that view which narrows Christianity to ethical correctness or social enthusiasm. There is a Christian view of the universe, although it is elastic and growing and cannot be stereotyped in a creed, and acceptance of it does not constitute a Christian. And, while the Christian faith expresses itself in right conduct and the service of men, it has a bigger content than that, and has to do with the intangible realities of the life of the spirit. There is no original contribution to thought in the book, but with a splendid sanity it does succeed in the difficult task of discovering and disclosing the heart of the Christian faith without at the same time robbing it of comprehensiveness. The point of view is that of the new orthodoxy. The author adopts as a matter of course the critical approach to the Bible, and accepts the world of things and men as it is being re-interpreted by the various sciences; but these influences have not deflected him from the historic Christian faith. Allowing for change of emphasis it is Christianity as it has always been understood by the saints that is presented in these pages.

The Introduction deals with the relation between Faith and Creeds. It shows how the historic Creeds—the Apostles', the Nicene, and the Athanasian—were molten in the hot furnace of controversy, and how unsuitable they are, both in what they contain and in what they omit, as expressions of a modern Christian's belief. They can be used by scholars who know how to interpret them in terms of modern thought, and by the unthinking who recite them without asking about their meaning; but to the intelligent who have had no adequate theological training they are a jumble of bad science and puzzling metaphysics. The Free Churches do not stress the point of credal orthodoxy. They have their articles of doctrine, and their ministers are expected to subscribe to them, though not in any rigid way; but the rank and file of the members are asked no questions on matters of belief. The fate of the Free-Church catechism indicates that the times are not favourable to creed-making; and, as a matter of fact, no creed can compass the reality of the Christian experience. "Perhaps a sufficient statement would be that the faith of the Church is expressed in the New Testament writings as these are understood by growing Christian experience." After this introductory discussion the book falls into three parts, the first concerned with the contents of a Christian's faith, the second with its environment, and the third with its consummation. In the first part the Christian view on the subjects of God, Christ, Man, Sin, Redemption and Destiny is set forth. Mr Mantripp modestly disclaims the *rôle* of the theologian; he only "skirts the coasts of theology." It is true that each subject is briefly discussed, and many problems that leap to the mind are not even mentioned. Yet, in each case, the central idea is made clear. The Christian God is the God revealed by Jesus in His teaching and person. The doctrine of the Trinity is the Christian way of resolving

what is involved in the transcendence and the immanence of God, and, while metaphysically perplexing, answers to Christian experience. Jesus is God manifest in our flesh, one with us, one with God. The Virgin Birth is of no value as explaining His divinity. In Man we find a dual element—a spiritual capacity in which God has faith, and a lack of response to that faith. But God's faith is the more important factor, and the presence of Jesus in human life means that God is in the struggle. Jesus is the true measure of man. Sin is a reality, and not to be treated as a mere negative; but it is neither man's career nor his destiny. It raises many problems, but Christ conquered sin for man. There are various theories of Redemption, many of them false, and all of them inadequate. All the same, redemption is an experience, however impossible of explanation it may be. Man's Destiny is God, and love will have its way in the end.

Faith is an active principle, and in the second part of the book it is shown how faith must react on the environment of life. Faith in action is described as the paramount need of Christianity to-day. The task here is to hold the scales even between world-acceptance and world-renunciation. Mr Mantripp is insistent that the central task of a Christian is soul-making. "Religious experience is life's supreme attainment." Bible-study and prayer, communal worship and the Sacraments, as means of soul-culture, are all discussed. Man has the power to transcend circumstance, and his real satisfactions never lie on the material plane. And yet it is recognised that man has been placed in a material world, and linked to it through his body, and that the physical reacts in many ways on the spiritual. Also that life is full of injustice and social evil. So his Christian faith must find expression in making a right use of material things, and seeking to remedy all that is wrong in social life. Perhaps Mr Mantripp would have been aided in his treatment of these two antagonistic attitudes if he had recognised more fully that the soul and its world, while distinct, are not separable. The environment of human life is not something merely outside it as a man's coat is outside his body. It is something that interpenetrates him, and his soul grows only as it is acted upon by this encircling reality and reacts to it. At the same time, it is refreshing to be reminded, in these days of emphasis on the outer factors of life, of the supreme value of personality. As regards the future, Mr Mantripp is a confirmed universalist. Of the three terminals in Roman Catholic theology—Heaven, Hell and Purgatory—he disavows the third; but it is really the second that he rejects. If Hell is not everlasting, it ceases to be Hell and becomes Purgatory. Mr Mantripp belongs to the school of the new Calvinists who repudiate the idea that God's purpose can be frustrated; and, as that purpose is the salvation of all men and the utter destruction of evil, that must be the final consummation. God's Kingdom will be established in this world by the final victory of good, but it is in the next world that it will find its perfect realisation. About the life to come we know little, but it will mean eternal progress in perfection. In his concluding chapter, Mr Mantripp makes a timely

attack on the invasion of the realm of theology by scientists and others who have no technical qualifications for the task. The value of the book is enhanced by the wealth of quotation in it. The quotations are not, for the most part, introduced into the discussion, but are placed as a preface to each chapter; and they are culled from many sources, ancient, mediæval and modern, Christian and non-Christian. On the whole, the work, though unpretentious, is a real gain to Christian literature, and should help its readers to appreciate their faith more intelligently.

ERNEST B. STORR.

NUNEATON.

The Hellenistic Elements in Christianity. By Anathon Aall, Professor of Philosophy at the University of Oslo.—University of London Press.—Price 3*s.* 6*d.*

THIS little book consists of Lectures delivered in the University of London in 1929. In the Preface the author expresses his deep indebtedness to Professor G. Dawes Hicks "for having taken the trouble to revise my MS. and for making many helpful suggestions." These Lectures are a summary of a theory of the origin of Christianity which has been worked out in detail in the author's two volumes entitled *Der Logos*. His positions appear, therefore, more dogmatic and are less convincing than would be the case if we were more cognisant of the process by which he has reached his conclusions. We are presented with a number of interesting statements which demand attention and often challenge criticism. We feel a weight of knowledge and thought behind them, but the reasoning which has led to them is not always clearly evident.

At the beginning of his third Lecture the author says: "Our main purpose in these Lectures is to analyse the conception of Christianity and to get at its essential meaning. We have arrived at the conclusion that Christianity was essentially and historically founded on Hellenistic ground, much more so than the mere name itself is likely to suggest." This statement by itself would seem to mean that the teaching and life of Jesus of Nazareth can be ignored, and that Christianity is mainly a form of Greek philosophy working on mythical or legendary Oriental ideas. Professor Aall is not so indifferent to history or so agnostic in relation to Jesus as might appear. "The basal fact," he says, "in the history of Christianity is Jesus himself." This sentence is followed by a striking summary of the teaching and life of Jesus. He has no sympathy with those who think it impossible "to gain trustworthy information as to who Jesus was, what he did, and what he actually taught. There is no reason for supposing that we cannot get at the truth. One has only here as always in dealing with historical matters to submit oneself to the the conditions under which historical truth is won." The description

of the work and character of Jesus is given in a few pages with reverence and sympathy. There is nothing conventional about it. It bears the mark of fresh deep feeling as though it were the experience of a somewhat wearied philosopher reading the gospels for the first time and yet feeling them all the more wonderful because it was not the first time. "The liberating word that could serve as a keynote for a true religion had at length been found. It was the word Love in the sense of unconditional and unrestrained goodness. The word itself was not new. What word indeed belonging to the vocabulary of the human affections can be said to have been uttered for the first time? But now this word was tremendously enriched in significance. Goodness, gentleness, love, as between individuals and between peoples and nations—these according to Jesus were the principles which ought to govern human life. And Jesus was himself, so to speak, an incarnation of the principles he was inculcating. Comforting, healing, blessing, he moved among suffering, penitent human beings; while himself subject to the hardest trials, he breathed the sublimest prayer that ever fell from human lips, 'Not My will but Thine be done.'"

There is no question, then, of Professor Aall's recognition of the supreme value of Jesus. Jesus is the source and inspirer of the new movement in religion. He is unaffected by Greek thought. His teaching, so far from being affected by outside influences, is purely Jewish and Oriental. "The gospel preached by Jesus and his apostles was essentially a product of Judaism." But "the Christian gospel had in it the promise of greater things, and, when to the Jewish material new factors were added, the result is a product which can no longer be described as an outcome of Judaism."

Professor Aall recognises the permanent religious value of the life and teaching of Jesus and also the permanent religious value of the Greek influence upon it. He sees that Christianity, if it were not to remain a Jewish sect, must go out into the world and be mingled with other forms of thought. It need have no definite intention of accommodation, but it would be influenced as well as exert influence. The result is neither to be deplored as a disaster nor to be regarded as a divinely ordained attainment of dogmatic truth. The history of doctrine is no more and no less divine than the history of States or the history of philosophy. To believe that Christianity was profoundly influenced by Greek thought is not to feel ashamed of it, nor, on the other hand, is it to regard Greek thought as paramount and the original teaching and life of Jesus as of no importance.

The section of these Lectures most open to criticism is that dealing with St Paul's contribution to Christian doctrine. St Paul was, according to Professor Aall, the leading influence in freeing Christianity from Judaism and in interpreting it in terms of Greek thought. There can be no question that St Paul freed Christianity from Jewish Particularism, although it might be argued that in doing so he was really acting in accordance with the spirit of Jesus. But the question how far St Paul was influenced by Greek thought in his

presentation of the Gospel is much more difficult to answer. Professor Aall answers it very definitely. He regards St Paul as having been trained in Greek Philosophy in the University of Tarsus. It would almost seem as though St Paul had been as deeply Hellenised at Tarsus as Philo was at Alexandria. "He was a member of the aristocracy of Tarsus and came into close contact with the Græco-Roman world at its best." This statement will not carry conviction to all scholars. It is quite possible for St Paul to have grown up in the Jewish community at Tarsus without close contact with its University or its philosophy. It is curious, if he had been trained in all the knowledge of the Greeks, that the references in his Letters to Greek literature and philosophy should be so scanty. Professor Aall seems to ignore too much the personal and Jewish side of St Paul's religion. He treats him too much as a Hellenistic missionary and interpreter of Christianity to the Gentiles, and too little as the man who had found new life in Jesus Christ. Paul's Gospel was not primarily a reasoned interpretation of Christianity to the needs of the Gentiles. It was first of all a personal relationship to his Saviour. It was a gospel which had come to him in answer to his own deep need. "O wretched man that I am! Who shall deliver me from the bondage of this death?" His doctrine of the crucified Christ has more affinity with the 53rd chapter of Isaiah than with Greek thought. It is possible that St Paul's doctrine of the Eucharist was influenced by the Greek mysteries, and there are evident traces of the Logos doctrine in 1st Corinthians and Colossians. Yet this does not prove St Paul to have been more a Greek than a Jew.

That Greek thought influenced such early Church Fathers as Clement of Alexandria and Origen is beyond dispute, but that it was the main influence in St Paul's gospel is less clear. He was a great soul struggling for release from his sins, longing for a strength beyond his own. He could not find it in the Jewish law. He found it in the death and resurrection of Jesus Christ. There is a sense in which St Paul's words about the relation of man to Christianity apply to his own thought. "For in one Spirit were we all baptized into one body, whether Jews or Greeks, whether bond or free, and were all made to drink of the one Spirit." It is the "one Spirit" in which whether Greeks or Jews we live and move and have our being which we are in danger of forgetting when we concentrate on Greek or Jewish influences. That Christianity, in common with all other departments of civilised thought and life, owes much to the Greeks is beyond doubt. Professor Aall's reminder of our debt to Greek philosophy in our religious conceptions is well worth careful consideration. It does not lessen the value of Christianity or suggest that it is an artificial creation. It does not eliminate what is its essential truth which lies in the perception and experiences of great spirits, whether Greek or Jew, in communion with the Eternal. The interpretations they give of their experiences are affected by the forms of thought amid which they live. But the relation itself of man to God is not of this race or that but belongs to humanity, and

it is this which gives it life and power in whatever form it may be expressed.

H. Gow.

BRIGHTON.

The Fourth Gospel in recent Criticism and Interpretation. By Wilbert F. Howard, M.A., D.D., of the Lamplough Chair of New Testament Language and Literature, Handsworth College, Birmingham London: The Epworth Press, 1931.—Pp. 292.—*7s. 6d.*

DR HOWARD, who is already well known for his fine and accurate scholarship in connection with Volume II. of J. H. Moulton's *Grammar of New Testament Greek*, has now published a work of very great value on the Fourth Gospel. The first part is a historical survey of critical opinion in the twentieth century in Great Britain, America, Germany, and France; and it is safe to say that there is no fuller and better informed survey available in English. Some indication of the extent to which Dr Howard has cast his net is supplied by the Bibliography, which consists of more than 250 books and articles, and is strictly limited to works which the author has himself read and studied. In Part II. the critical questions are discussed, and in Part III. the problems of interpretation. Seven detailed Appendices follow, in which, among other things, the evidence relating to authorship, the linguistic features of the Gospel, theories of partition, redaction and displacement are given with great fullness and accuracy.

Dr Howard rightly claims that the great need, in critical discussions of the unity of the Fourth Gospel, has been a careful study of its lexical and grammatical usages. The linguistic contribution which he supplies is, therefore, greatly to be welcomed. Largely on this evidence he holds that substantially the Gospel is a unity, and he confesses that he has been led by this study "to change his former belief that the Appendix came from a different hand than that which wrote the rest of the Gospel." Dr Howard succeeds in making the question of the alleged textual dislocations interesting; he himself inclines to the view that the Evangelist left the work unfinished, in varying stages of revision, and that the reverence in which he was held prevented those who published the work from tampering unduly with the existing order of the leaves. An interesting chapter treats the relation of the Fourth Gospel to the Synoptics, and here Dr Howard shows the historical value of the traditions preserved in the former, notably with regard to the events of the Last Week, and the date of the Supper and the Crucifixion. No doubt he will fail to carry many readers with him when he says: "We feel strongly drawn to accept the Johannine date" in respect of the Cleansing; but in this matter I think he is right, if we have regard to the special Lukan tradition. Perhaps the most important chapter in Part II. is the discussion of the background of thought in relation to the Johannine message, especially the account given of Schweitzer's *Die Mystik des*

Apostels Paulus. Dr Howard agrees with H. Lietzmann in thinking that the Mandaean writings enable us to study the "christianizing of an oriental Gnosis, not the Gnostic background of early Christianity" (Lietzmann).

A discussion of the interpretation of the Gospel naturally leads to the subject of Symbolism and Allegory. Here Dr Howard distinguishes between the allegorising method which treats the story "as a mere transparency" through which the true meaning is visible, and the method of the Evangelist "who describes what he believes to be veritable fact, but with a keen eye to the deeper revelation which the story may contain." Candid opinions are put forward in respect of some of the miracles in the Gospel. Adapting words of J. B. Mozley, Dr Howard finely says that "when a moral principle collides with a miracle we feel, by every Christian instinct, that it is the miracle that must go to the wall." This is all to the good, but I doubt if many will feel satisfied with the rationalistic explanation given of the Marriage Feast at Cana. The Evangelist certainly accepts it as a miracle (cf. ii. 11), but it seems better to think that originally the story was a piece of conscious allegory, than to suppose that what Jesus did was to bid the servants "pour water from the now filled water-pots into the diminishing supplies of wine." This idea seems much too modern! But I am bound to add that Dr Howard gives a very ingenious explanation when he says: "The real miracle is that under the influence of Jesus, and stimulated by the royal wine of His heavenly discourse, their joy exceeded all the festal mirth of the earlier time, each guest rose above his ordinary level of thought and speech, his conversation sparkled with a brighter wit, and, when the feast was over, it was remarked that the best wine had been kept to the end." In the story of the Walking on the Water (John vi. 16–21) Dr Howard is disposed to agree with the late Archbishop Bernard in translating ἐπὶ τῆς θαλάσσης "*by* the sea," and he thinks of the Raising of Lazarus as the dramatisation of a story of restoration to life, the details of which cannot now be recovered.

"Mysticism and Sacramentalism" receives sympathetic and discriminating treatment, and this is even more true of the theme "Jesus in the Johannine idiom." Here we should like to see a long chapter by Dr Howard in which the first sentences would be those with which he now closes his present discussion. He holds that the Evangelist has often given a Targum on the words of Jesus, and then says: "The Targum is sometimes an almost literal translation of the actual words that were spoken; sometimes a free paraphase; sometimes an interpretative exposition."

While rejecting the theory of Apostolic Authorship, Dr Howard leaves the identity of the author open; he believes that a connection between the Apostle and the Gospel is "extremely probable," and associates himself with the late Professor Peake in rejecting the popular theory of an early martyrdom of John. I may be prejudiced in welcoming this opinion since I have myself been reproved by Professor Creed for saying that the alleged Papias tradition regarding

the Apostle's martyrdom "ought unhesitatingly to be dismissed." There are a few matters on which one might break a lance with Dr Howard, such as his claim that the Evangelist "certainly" makes use of Luke. Here Dr Stanton's caution seems better warranted, for the parallels stated so fully on p. 147 may be due to a knowledge of oral tradition. Would Bousset, moreover, have described Paul as the "innovator" who Hellenized Christianity? Did he not rather think of the Apostle as one who continued and furthered a process already begun in the Hellenistic communities in Antioch, Damascus, and Tarsus? Dr Howard, of course, knows this very well; it is merely a question of using too strong a word in relation to Paul. We should like also to have heard more from Dr Howard about the significance of Dr Mingana's discovery of a Syriac MS. which attributes the Gospel to "the preaching of John the younger," who "spoke Greek in Bithynia." But if one begins to name things to be desired in a book on the Fourth Gospel, there can be no end. One thing is clear from the present work: there is perhaps no one in Great Britain better fitted than Dr Howard to write the Commentary on this Gospel we all want to see. He tells us that he once wished to write a book on the Theology of the Johannine Writings, but found himself dissatisfied alike with the drastic solution of the critical problems by many modern scholars, and with the answers offered by the Cambridge School of the nineteenth century. It is to be hoped that the earlier wish will yet be fulfilled, but the Commentary is the greater need, and for the writing of this Dr Howard is well qualified by his exact linguistic scholarship, his knowledge of the history of criticism, and his courage and judgment.

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Synoptische Studien. Von Wilhelm Bussmann.—Drittes Heft: *Zu den Sonderquellen.*—Halle (Saale): Buchhandlung des Waisenhauses, 1931.—Pp. 211.

DR BUSSMANN has now completed his *Synoptic Studies* in a volume which treats of the special sources used by the Evangelists. Like its predecessors, Part III. is a remarkably thorough investigation of the Synoptic data which takes full account of all that has already been attempted in this field of research.

In a former review (HIBBERT JOURNAL, Vol. XXIX., pp. 757–760) I described the three stages (G, B and E) which Dr Bussmann finds in the literary evolution of Mark. In the present volume he discusses the sources B and E. B, which is printed in Greek, is held to have consisted of Galilean stories, discourse material, and a Passion Story. It was not a complete Gospel, but a collection, compiled from oral tradition, which in some respects was akin to, or identical with, one used by the Fourth Evangelist. E also was a collection, having

points of contact with the Fourth Gospel, but unlike B it was a kind of primitive Gospel, used for the purpose of expanding and enriching G + B.

In investigating the source S used by the Third Evangelist, Dr Bussmann treats a problem which has repeatedly received attention. S, he maintains, was a complete Gospel probably written by Luke, the companion of Paul. Like B and E, it has striking points of contact with the Fourth Gospel, and these " are to be explained by the view that the collector of S knew a Johannine tradition, or a source lying at the basis of the Fourth Gospel, from which he inserted much into individual sections and especially in the Passion and Resurrection Story " (p. 144). In this chapter Dr Bussmann states his objections to Canon Streeter's Proto-Luke Hypothesis. The hypothesis, he holds, is not supported by Luke i. 1–4; the Third Evangelist follows the Markan outline, and the absence of so much Markan material is best explained by the *Ur-Markus* Theory; ὁ κύριος and κύριε (in Proto-Luke) may be Luke's stylistic insertions. These objections do not seem very formidable. The discussion, indeed, appears to be foreclosed by his theory of the composition of Mark. If this is so, it confirms the opinion expressed in my earlier review that Dr Bussmann's Markan theory and that of Proto-Luke are alternative ways of explaining the same data. A fuller discussion (pp. 137–140) is given to Canon Streeter's contention that two periods of Luke's literary activity are discernible in the Third Gospel as in the Acts. This is countered by an argument in favour of the distinction, common among continental scholars, between Luke and the Third Evangelist. Dr Bussmann argues that, even if Harnack is right in the view that the Acts was written by Luke, we should still have to allow for stylistic revision on the part of the *auctor ad Theophilum* (p. 141).

In the First Gospel Dr Bussmann distinguishes a source M, which in many respects recalls Canon Streeter's M Hypothesis. The main difference is that, with doubtful justice, M is made to include not only the sayings and parables peculiar to Matthew, but also its late narrative material. It seems in every way better that, with Professor Bacon and others, we should separate this material from anything we ascribe to M. As Dr Bussmann describes it, M becomes such a varied assortment that it is no wonder it is said to be no Gospel, but, like B, a collection made for the purpose of supplementing existing written sources. The collector, he says, may have been the First Evangelist, but, in view of its stylistic peculiarities, it is more probable that M was a fixed written source when the Evangelist used it. M, he believes, belongs to a later date than G, R, T, and B, and may be later than E; like B, E, and S, but less notably, it has points of contact with the Fourth Gospel.

In his last chapter Dr Bussmann gives an interesting sketch of the process by which the Gospels came into existence. In agreement with M. Dibelius and K. L. Schmidt, he believes that the Passion Story attained written form first, but he takes a new line in main-

taining that we can trace this Story in several forms—in G, in B, in S and the Fourth Gospel, and even in M. A striking feature of the reconstruction is that he places Luke first among the extant Gospels, dating it a little before A.D. 62. Luke's sources were G + T, R, and S. The Second Evangelist, who wrote a few years later, knew nothing of R, T, and the Third Gospel, and his sources were G + B and E. Last of all came the First Evangelist who compiled his Gospel, probably at Jerusalem, from G + B, G + T, R, and M. In this sketch is evident once more the emphasis which Dr Bussmann everywhere gives to the value of the Third Gospel. "The Third Evangelist, who stood nearest in time to the events, has ventured least of all to make alterations in the contents and the text; he feels bound in this respect, and limits himself almost entirely to stylistic alterations" (p. 179). It is interesting to find a characteristic British evaluation so strongly maintained in Germany!

It is intriguing that, just when we are recovering our breath after Canon Streeter's proposal to substitute a Four- for a Two-Document Theory, a distinguished German scholar should present us with an Eight-Source Theory. It should, however, be remembered that G + B and R + T form the foundation of the whole, and that roughly these compound sources correspond with Mark and Q. This means that the traditional Two-Document Theory remains the foundation for further developments. In Dr Bussmann's hands the case for special sources used by the First and Third Evangelists receives added justification, but the Markan source E seems to be a doubtful entity, and the Johannine source continues to rest in the shadows where perhaps it must always lie. Dr Bussmann accepts, but does not discuss, the view of the *formgeschichtliche* critics that behind all documents lies a stage in which isolated units of primitive tradition circulated freely. Written sources, he holds, first appeared in A.D. 40–50. He attaches great weight to the words κατὰ τὰς γραφάς in 1 Cor. xv. 3f, and boldly contends that they refer, not to Old Testament passages like Psa. xvi. 8–11, Isa. lv. 3, 2 Kings xx. 5, Jon. ii. 1, and Hos. vi. 2, but to existing accounts of the Passion and Resurrection Story current in the primitive communities.

From the foregoing it will, I hope, be apparent how very fertile in resource and suggestiveness Dr Bussmann's work is. No review, however, can do more than indicate the massive character of his labours and the painstaking attention to detail which he gives. There is in his work, I think, too great a reliance on documents and the literary aspects of the Synoptic Problem, with the consequent minimising of the oral factors which are receiving greater justice in other quarters; but his severest critic would recognise the master-hand in Dr Bussmann's work, and the fact that it will occupy an assured place in the Criticism of the future.

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The Knowledge of Reality. By Wincenty Lutoslawski.—Cambridge University Press, 1930.—Pp. 190.—*7s.* 6*d.* net.

THE author's object is to show that "the age-long quest for truth has led to a final synthesis revealing the ultimate nature of material, intellectual and spiritual existence," and that the practical application of this synthetic philosophy will establish the Kingdom of Heaven on earth. Professor Lutoslawski begins by giving a classification of various *theasies* (*i.e.* conceptions of reality) from Thales onwards, adopting as its basis the thinkers' temperament. Those in whom "sensations prevail over everything else" are responsible for materialism in philosophy; those "who care infinitely more for the activity of thought" are idealists; men "more interested in their emotions than in either sensations or thoughts" work out pantheistic theories, and individuals in whom will prevails over emotions, thoughts and sensations are spiritualists, for the experience of their own creative will give them proof of the supremacy of spirit over matter. These types form an ascending hierarchy, and, as the lowest type is the most common, the majority of men are materialists, though they may not be aware of the fact. The first step towards the discovery of truth is to expose the fallacy of the materialistic interpretation of the world, and Professor Lutoslawski devotes several chapters to the task. He first shows the inadequacy of the scientific theory of matter as the conception of bodies in movement; in proportion as the special sciences transcend this conception and take account of the qualitative aspects of objects they come nearer to truth; the highest science of all in this ascending hierarchy of sciences is metapsychics—the study of mediumistic materialisations! Metapsychics teaches us that "matter is not a real substance, but something relative and subordinate to a spiritual reality." The same conclusion is reached in a different way through a range of activities in which man, instead of observing what already exists, attempts to transform reality by his will—viz. through art, business, physical training, sexual life, religious ritual and national life. The purpose of the artist is to impress on external matter some form pre-existent in his spirit, and "in doing so he penetrates more intimately into the nature of matter than the scientist can do by observation, experiment and thought." Professor Lutoslawski maintains on various grounds that art is a higher activity of the human spirit than science, but in art, as in science, there is a succession of stages leading to a deeper understanding of matter. "The supreme art, superior even to pure poetry, because it is the final synthesis of all preceding arts, the living representation of an aspect of human life," is the theatrical art. "Its matter is dramatic poetry, with every kind of decoration furnished by sculpture, architecture and painting, sometimes combined with music, song and dance."

Still more startling, perhaps, than this glorification of the theatrical art above any other is the contention that in business (including agriculture, industry, commerce, banking, the business of war, of

law, of medicine, etc.) " there is a synthesis of the intellectual achievement of science with an artistic realisation of beauty." Business utilises sciences and arts for the production of wealth, and its task is the final mastery of matter by the spirit. In the idyllic picture of the gradual ascent of man to spiritual heights through material civilisation, even poisonous gas comes in appropriately, for we are told that at the present day " soldiers use scientific knowledge and technical skill for the defence of goods produced by industry and disposed of by commerce." The clergy will be pleased to know that they too have their uses: " We may consider the clergyman as a kind of spiritual lawyer improving the general atmosphere of the world of business " !

The understanding of matter acquired through science, art and business is further extended through physical training and sexual life, which teach us that matter is *temptation* to be overcome by the spirit, and through religious ritual that shows us how material objects may become foci for the concentration of spiritual forces. But in ritual only insignificant quantities of matter undergo trans-substantiation; the process is carried out on a bigger scale in the *national life*, in and through which the whole territory of a nation is transformed into a holy relic.

As a result of these seven methods of gathering experience—science, art, business, training, sexual life, ritual and national life—the conclusion is reached that " matter has no existence save in relation to mind." It is the product and instrument of the spirit; it is that which resists our will and the " capacity of the spirit to overcome that resistance and to attain mastery defines matter."

The falsity of materialism has led early in the history of human thought to a protest against it in the form of idealism—the view that " ideas are the only reality," which is equally false. It is hard to make out what exactly Professor Lutoslawski means by ideas. He talks of ideas having a kind of reality within ourselves (similar to the reality of matter), but it is clear enough that he regards idealists with disfavour. " An idealist is capable for the sake of an idea of killing or torturing others and even himself "; " his own individuality is neglected like all other individualities and only general abstractions or ideas exist for him "; " idealism has justified the utmost cruelty and every kind of persecution." No wonder that " men of emotion who suffer when they witness the cruelty of idealists or the roughness of materialists " seek to find some fresh interpretation of the world, and arrive at pantheism, according to which " real existence is neither material nor ideal, but essential oneness." This is a step forward, but it appears that pantheism prevents creative activity and " makes the world a very dull place to live in." We learn with some surprise that a leading representative of pantheism is Professor Alexander; but, considering what had just been said about the materialists and idealists, it may be a relief to find oneself classified with the pantheists, who are " unobtrusive, peaceful men, not likely to fight for their convictions and ready to agree to everything."

Spiritualism is the inevitable fourth stage in the quest for truth; it is the philosophy based on the discovery of the individual spirit. It is said to have been born in France, but to be a conception of life and being for all nations; and it is gratifying to know that, "besides Christianity, it is chiefly the world of business in its higher stages that leads to spiritualism." Spiritualism is pre-eminently the philosophy of "the most successful business men."

The element of truth contained in pantheism—its insistence, namely, upon the unity of the world—is reconciled with the pluralistic philosophy of spiritualism through mystic intuition or ecstasy which reveals to us the reality both of God and of the individual soul; so that mysticism may be said to be a fifth stage in the quest for truth. There may, however, be a conflict between the spiritualist and the mystic—between the man of will and the man of God—and it can only be overcome through active love between a group of individuals who are conscious of a mission entrusted to them by Providence; *Messianism* is thus seen to be the final outcome of all philosophy. The most intimate groups of souls are nations, and the active love of the Messianist becomes national consciousness. The unity of a true nation—*i.e.* of a group of spirits having a mission to fulfil in the life of mankind—is intermediate between the unity of self and the unity of the universe in God; the number of such nations is limited to those that are true organs of God in the life of mankind. Each of these true nations has a territory assigned to it by Providence, though Professor Lutoslawski admits that it takes a long time to ascertain what its divinely appointed frontiers are.

When, however, these difficulties are settled and each true nation sets to work, carrying out its own special mission, the earth will be gradually transformed into a part of heaven. "The difference between this and the other life will gradually be overcome, and this life shaped after the pattern of the other life"; and in the chapter on "Regenerated Mankind" we are given a glimpse of what this perfect state is likely to be.

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The Seceders. A SUPPLEMENT. Appendix IV. An intimate Portrait with Illustrations and Index to Vol. I. By J. H. Philpot, M.D. London: C. J. Farncombe & Sons, Ltd., 1931.—Pp. 353–368.

THE many readers of *The Seceders* in this country, America and elsewhere, will like to hear of this interesting and useful addendum to the work. The "portrait" is revealed in a survey of the chief "Seceder's" diary for 1837, his thirty-fifth year, when with the die cast as to his "secession," J. C. Philpot was strenuously ploughing his lonely furrow, fighting down bronchial trouble, secretly betrothed, spending himself as a prose poet on sermons and reviews, and battling strangely, for one who had given himself to walk with God, against the "terror of being left to his foolish and empty self." I left the

little sketch wondering, not so much over the "leisurely days" of a century ago, as at the endurance, the wear and tear involved, for any man, let alone a delicate temperamental one, on fire with his mission, in the difficulty, the discomfort, the tedium of getting anywhere, whether it was sitting for hours in a coach, or, at fifteen miles an hour, in the "new" trains, or "in a cart over the Down," or afoot. Yet there were author's compensations, to look no higher. For a sermon published in January we see him writing a preface in March for a twopenny edition, the 1,500 copies all sold, and in its 6th edition at the year's end. Could this befall any sermon of to-day?

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